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U.S.-JAPAN PENSION FUND ALTERNATIVE INVESTMENT CONFERENCE:

**THE CURRENT STATUS OF ALTERNATIVE INVESTING
AND FUTURE DIRECTIONS**

FEBRUARY 12, 2004

Co-Organizers: Center on Japanese Economy and Business, Columbia Business School and The Pension Fund Association of Japan

**U.S.-Japan Pension Fund Alternative Investment Conference:
The Current Status of Alternative Investing and Future Directions**

February 12, 2004
Shinagawa Prince Hotel
Tokyo, Japan

Co-Organizers:

Center on Japanese Economy and Business
Columbia Business School

The Pension Fund Association of Japan

U.S.-JAPAN PENSION FUND ALTERNATIVE INVESTMENT CONFERENCE:

FOREWORD

A new category of institutional investor has entered the world of alternative investments: the Japanese corporate pension plan. Long discouraged from entering the field due to domestic government regulations and other factors, since the late 1990s a growing number of such plans have made financial commitments to one or more categories of alternative investments.

Despite the increasing significance of this phenomenon, the lack of reliable information on relevant trends and the potential impacts of these alternative investments have raised a number of important questions. For example, precisely how many Japanese corporate pension plans have invested in alternative assets, and what is the value of these investments? Which investment styles do these plans favor or avoid, and why? What are likely future trends in these Japanese plans' commitments to alternative assets? And how does participation in alternatives by Japanese corporate pension plans, now and in the future, compare with their U.S. and other Western counterparts?

To address these and related questions, the Center on Japanese Economy and Business at Columbia Business School and the Pension Fund Association of Japan (PFA) co-organized a conference that brought together leading representatives of North American and Japanese pension plans. The meeting, held in Tokyo in February 2004, attracted a capacity audience of more than 450 people drawn largely from the Japanese pension community and received financial support from 43 Japanese and non-Japanese financial institutions. Hiroshi Tada, president of the PFA, and Yuzaburo Mogi, president and CEO of Kikkoman Corporation and trustee emeritus of Columbia University, offered introductory remarks.

The conference was then organized into four speeches and three panels. The first speech, by Yasuchika Asaoka of the PFA, set the overall context by defining the field of alternative investments and specifying a number of key topics the conference would examine. The PFA's

Akihiro Nakamura then presented a summary and analysis of an original PFA pension plan member survey, created jointly by the PFA and the Program on Alternative Investments, regarding their current and expected future allocations to alternatives. Mark Mason of Columbia Business School followed with a comparison of evolving U.S. and Japanese corporate pension plan participation in alternatives in the context of the two countries' overall investments in the alternatives field by their respective groups of tax-exempt institutions.

The audience then heard from speakers organized into three panels considering each of three major alternative investment categories, followed by the concluding keynote address. The first panel, on private equity, was moderated by Masakazu Arikawa of Sony and featured presentations by Gregory Williamson of BP America and Shuzo Takahashi of the PFA. The second panel, on hedge funds, was moderated by Mark Mason and was based on talks by Yoshihide Furuya of the Japan Computer Information Services Employees' Fund and Francesco Mainolfi of the World Bank. The third panel, on real estate alternatives, was moderated by Noboru Yamaguchi of the JTB Pension Fund and featured presentations by Leo de Bever of the Ontario Teachers' Pension Plan and Hidekazu Ishida of Osaka Gas. Finally, N. P. Narvekar of the Columbia Investment Management Company discussed the role of alternative investments in the context of his organization's broader investment portfolio.

What follows is the English version of the conference transcript. As always, the Program welcomes comments from interested readers.

Mark Mason, Ph.D.

Director

The Program on Alternative Investments
Center on Japanese Economy and Business
Columbia Business School

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SPEAKER PROFILES

MASAKAZU ARIKAWA

Masakazu Arikawa is an Executive Board Member of the Sony Pension Fund, President and Representative Director of Sony Global Management Corporation, and General Director of the Pension Planning Department of Sony Corporation. Prior to these positions he was Chief Executive Officer of Sony Global Treasury Services from 2000 to 2003.

Mr. Arikawa graduated from the Faculty of Economics of Hitotsubashi University in 1969 and joined the Ministry of International Trade and Industry. He began his career with Sony Corporation in 1974 and became President of Sony Overseas SA in 1986. In 1990 Mr. Arikawa became General Manager of the General Planning and Investment Planning Department and in 1995 Director-General and Executive Board Member of Sony Pension Fund, where he still serves in those capacities. He also has served as outside board member of Sony Life Insurance Corporation, Sony Finance Corporation, and Monex Inc.

YASUCHIKA ASAOKA

Yasuchika Asaoka is Executive Director of the Pension Fund Association of Japan (PFA). Prior to joining the PFA in 2001, Mr. Asaoka worked for Nomura Research Institute (NRI), beginning in 1972. In 1983 he was Chief Researcher of NRI, and in 1986 worked at its New York office. In 1988 he returned to Tokyo and was General Manager of the Mathematical Research on Bond Division, and Head of the Nomura Pension Management Research Group. Mr. Asaoka was Director of the System Science Division from 1989 to 1994, Director of the Planning Division from 1994 to 1996, and in 1996 he became Executive and Director of Information Resources of the Human Resources Division and Manager of the Planning Division. In 1997 he was named Executive and Director of the Asset Management System Division of NRI. In 2000 he became Director of the Knowledge Solution Sector and of the Financial Knowledge Solution Division.

Mr. Asaoka is coauthor of *Saiken Unyo to Toushi Senryaku* (Institute for Financial Affairs, Inc., 1981) and *Shin Saiken Unyo to Toushi Senryaku* (Institute for Financial Affairs, Inc., 1991).

LEO DE BEVER, Ph.D.

Leo de Bever is a Senior Vice President at the Ontario Teachers' Pension Plan Board, which administers the retirement plan for 250,000 Ontario teachers. His depart-

ment is responsible for the Fund's risk management, tactical asset allocation, and economic research. The group also manages the Fund's real return and infrastructure assets. Dr. de Bever began his career at the Bank of Canada in Ottawa in 1975. In 1980 he started an economic consulting firm for Chase Bank in Toronto. From there he moved into asset management, first at Crown Life and then at Nomura Securities. He joined Teachers' in 1995. He received his Ph.D. in Economics from the University of Wisconsin, Madison.

YOSHIHIDE FURUYA

Yoshihide Furuya is an officer at the Japan Computer Information Service Employees' Pension Fund. He attends investment seminars and is engaged in a wide range of research. He has been working on implementing a fundamental review of investment trust forms and establishing its effectiveness in the management structure.

In 1987, after graduating from the Faculty of Business of Senshu University, Mr. Furuya joined JJK (*Zenkoku Joubou Service Sangyo Kousei Nenkin Kikin*) and worked in Sales and Marketing in the Entitlement Division and the New Enrollment Business Development Division. In 1997, he was made responsible for General Management of Investment. In 2003, he joined the Corporate Pension Investment Research Group in the Research Institute for Policies on Pension and Aging.

HIDEKAZU ISHIDA

Hidekazu Ishida is an Investment Officer of Osaka Gas. He joined Osaka Gas Company in 1990 after graduating from the Faculty of Law of Tokyo University. In 1995, he received an MBA from Stanford University and returned to the Finance Department of Osaka Gas. In this position he worked in funding, risk management, investor relations, and pension asset investment. In 2000 Mr. Ishida headed the Tax Qualified Pension Investment. In 2003 he assisted in the translation of *Pioneering Portfolio Management* as a member of *Jisedai Nenkin Jitsumuka* Network. Mr. Ishida is a charter member of the Security Analysts Association of Japan, CMA.

FRANCESCO MAINOLFI, Ph.D.

Dr. Francesco Mainolfi is a Principal Investment Officer at the World Bank Pension Fund in Washington, D.C., where he leads the hedge fund investment team. He is responsible for managing all aspects of the World Bank's \$1.5 billion hedge fund portfolio. In this capacity, he

oversees asset allocation, hedge fund due diligence and manager selection, portfolio construction, risk management, and monitoring. Dr. Mainolfi joined the World Bank in October 2002 and subsequently developed the Bank's current hedge fund investment allocation and portfolio construction methodologies as well as the portfolio performance and risk monitoring platforms.

Prior to joining the World Bank, Dr. Mainolfi was responsible for alternative investment strategies at the Treasury Group of HVB Americas (Hypovereinsbank) in New York. At HVB, Dr. Mainolfi served on the investment committee and was responsible for quantitative modeling, research and strategy development for HVB's proprietary investments in hedge funds.

Before working at HVB, Dr. Mainolfi was Assistant Professor of Finance at DePaul University in Chicago, where he focused on investment management and financial derivatives. Prior to joining DePaul, Dr. Mainolfi was an adjunct professor of finance at the Graduate School of Business at Columbia University. Dr. Mainolfi received his Ph.D. in Finance from Columbia University in 1999 and holds undergraduate and graduate degrees from York University and the University of Toronto.

MARK MASON, Ph.D.

Dr. Mason is Director of the Program on Alternative Investments at the Center on Japanese Economy and Business, Columbia Business School. In this capacity, he directs a range of research projects that examine the emergence of hedge funds, private equity and other alternative asset classes in Japan and the development of Japanese institutional investments in alternative assets both in Japan and abroad. In addition, he oversees an active series of seminars, symposia and conferences that examine alternative investments together with regular presentations by distinguished speakers from the business, government, and academic communities.

Prior to his current position at Columbia, Dr. Mason was a tenured professor of international business at Georgetown University, and before that a professor at the School of Management, Yale University. In addition to his academic activities, Dr. Mason advises institutional investors on alternative investing. He is the author of *American Multinationals and Japan* (Harvard University Press) and *Europe and the Japanese Challenge* (Oxford University Press), as well as numerous articles in leading business and management journals. Dr. Mason has been widely quoted in publications such as *Business Week*, *The Economist*, *The Financial Times*, *The New York Times* and *The Wall Street Journal*. He holds a Ph.D. from Harvard University.

YUZABURO MOGI

Yuzaburo Mogi became President and Chief Executive Officer of Kikkoman Corporation in February 1995. Kikkoman, the world's largest producer of soy sauce, opened its first U.S. plant in Walworth, Wisconsin, in 1973, and its second U.S. plant in Folsom, California, in 1998. A plant was opened in the Netherlands in 1997 and in China in 2002. Kikkoman also has plants in Singapore and Taiwan. Mr. Mogi first joined Kikkoman in 1958 after graduating from Keio University, Tokyo. He received his M.B.A. from Columbia Business School in 1961. He became a member of Kikkoman's board of directors in 1979, Managing Director in 1982, Executive Managing Director in 1989, and Executive Vice President in 1994.

From 1994 to 2000, Mr. Mogi served as a Trustee of Columbia University, and in October 2000 he was appointed Trustee Emeritus. He also was Vice Chairman of Keizai Doyukai (the Japan Association of Corporate Executives) from 1995 to April 2003. In 1996, he became a member of the Council of the World Economic Forum. In 2002, he became the Japanese chairman of the German-Japanese Forum, and in 2003 he became the Japanese chairman of the Japan-Midwest U.S. Association.

Since 1987, Mr. Mogi has been honorary ambassador of the State of Wisconsin to Japan in recognition of his role in establishing Kikkoman's first U.S. plant there and in promoting friendly community and state relations. He was a 1998 recipient of the Harry Edmonds Award given by International House of New York. In 2003, Mr. Mogi was awarded the royal decoration Officer in the Order of Orange Nassau by Queen Beatrix of the Netherlands. Mr. Mogi is the author of several books, including *How to Make an Overseas Plant*; *Introduction to International Business*; *The Day Shoyu Made It to America's Tables: The Export of Food Culture*; and *Overseas Strategies Without Friction*.

AKIHIRO NAKAMURA

Akihiro Nakamura has been Chief of the Investment Research Department of the Pension Fund Association of Japan since 2000. He joined the Pension Fund Association in 1987 and from 1991 to 1993 worked in the Pension Bureau of the Health, Labor, and Welfare Ministry and the Pension Management Division. In October 1996, Mr. Nakamura became Portfolio Manager of the Pension Management Division. In 1999 he joined the Japan Center for Economic Research.

Mr. Nakamura is a member of the Security Analysts Association of Japan. He was named by *Pensions and Investments* magazine as one of "25 to Watch in Finance" in its October 1998 25th anniversary issue. His publications include *Kakei no Kinyu Shisan Sentaku to Shisan*

Haibun (Household Financial Asset Selection and Asset Distribution, Japan Center for Economic Research) and *Kinyu Fukyo no Jissho Bunseki* (Positive Analysis on Financial Depression, Nihon Keizai Shinbun, Inc.)

N. P. NARVEKAR

N. P. (“Narv”) Narvekar became the President, CEO, and CIO of Columbia Investment Management Company in July 2002, where he now oversees Columbia University’s \$4 billion endowment and its investment team of 16. From July 1998 to July 2002, he was Managing Director of Investments at the University of Pennsylvania. During his tenure there, his responsibilities were to build Penn’s presence in the hedge fund and private equity arenas. He also worked closely with the CIO of Penn to build the investment team. Prior to joining the University of Pennsylvania, Mr. Narvekar spent his entire 14-year Wall Street career at JP Morgan, where he was a Managing Director responsible for teams dedicated to marketing structured equity derivative products for both corporate and high net worth clients. Earlier, he was in JP Morgan’s Private Placements Group, marketing structured debt issuance to corporate clients and distributing it to investor clients. Mr. Narvekar has an M.B.A. from Wharton, which he received while working at JP Morgan. He is a graduate of Haverford College.

HIROSHI TADA

Hiroshi Tada has been President of the Pension Fund Association of Japan since 1999. After graduating from the Faculty of Law of Tokyo University, he joined the Health and Welfare Ministry in 1962. In 1988 he became Director of the Health for Elderly Division of the Health Care Bureau. From 1989 until 1992 Mr. Tada was Chief Counselor of the Cabinet Counselor’s Office, Cabinet Secretariat, and Director of the General Affairs Division, Minister’s Secretariat.

Other positions Mr. Tada held in the Health and Welfare Ministry were Director, War Victims’ Relief Bureau, January 1992; Director-General, Minister’s Secretariat, July 1992; Director, Health Insurance Bureau in 1993; Vice Minister of the Health and Welfare Ministry from 1994 until 1996; and Special Adviser to the Minister of Health and Welfare from 1996 until 1997. In February 1997 Mr. Tada became President of the Seamen’s Insurance Foundation.

SHUZO TAKAHASHI

Shuzo Takahashi is part of the Equity Investment Team of the Pension Investment Department of the Pension Fund Association of Japan. He is mainly responsible for monitoring external entrusted investment funds. He has

been involved in launching the PFA’s alternative investments, which began in 2000.

In 1995, Mr. Takahashi graduated from the School of Education of Waseda University and joined the Pension Fund Association in the Operations Department and the Investment Research Department. In 1999, he worked in the Tokyo Metropolitan Government Bureau of Social Insurance Guidance and in 2000 moved to the Pension Management Division.

GREGORY T. WILLIAMSON

Gregory T. (Greg) Williamson is the senior investment manager for the Trust Investments Group of BP America Inc. (\$15 billion in assets). Mr. Williamson has specific responsibilities for the Group’s overall investment strategies and activities and external manager analysis and review. He is a member of Trust Investment’s aggregate fund, domestic investment, alternative investment and portfolio management and risk control teams and serves as secretary of the BP America Inc. Investment Committee. Mr. Williamson is also a member of BP Canada’s Investment Committee and directs BP’s effort to develop global pension management and financial risk management capabilities. He is a member of the advisory boards of several external organizations, including Castle Harlan Inc., Fenway Partners, Inc., the Woodside Fund and the Clemente Capital Korea Fund. Mr. Williamson is an Investment Risk Alert Advisory Board member and a member of the Risk Standards Working Group. Mr. Williamson is also a founding board member of the Chicago Quantitative Alliance and is a member of the Institute for Quantitative Research. He coauthored *Alpha: The Positive Side of Risk* (Investors Press, 1997) and was named by *Pensions and Investments* magazine as one of “25 to Watch in Finance” in its October 1998 25th anniversary issue.

Prior to his current position, Mr. Williamson was President and CEO of Alphatech Investment Management Company, which he formed after serving as President of Springfield Asset Management in Chicago. Before joining Amoco, Mr. Williamson was Vice President of investment banking at Northern Finance and had previously held positions with O’Connor and Associates in its proprietary trading and strategic planning groups, with F. P. Quinn and Co. as Director of Risk Arbitrage, and with Peterson and Co. in its strategic consulting and investment banking groups.

Mr. Williamson received a B.A. in Economics from Northwestern University with honors, and an M.M. in Finance and Strategy through the 3/2 honors program from the J. L. Kellogg Graduate School of Management at Northwestern University.

NOBORU YAMAGUCHI

Noboru Yamaguchi has been Executive Vice Chairman and CIO of JTB Pension Fund since 2003. In 1966 he graduated from Tokyo University of Foreign Studies and joined the Japan Travel Bureau (JTB). He worked in the New York and London offices for more than 11 years. From 1997 to 2003, Mr. Yamaguchi was General Executive of the JTB Pension Fund.

At the Pension Fund Association of Japan, his positions included fiduciary responsibility working team leader (1999), Chairman of asset investment committee (2000–2001) and Commissioner of risk management research group (2000–2001). Currently, he is a chairman of the system reform committee, Chairman of the Year 2004 reform special committee, Commissioner of PFA asset investment, Chairman of future training business discussion group, a member of corporate governance forum steering committee and Chairman of the Tokyo district council. He has been Chairman of Corporate Pension Network since 2002. He also oversaw the hybrid plan research network (2002) and corporate pension system research network (2003).

TOMOMI YANO

Tomomi Yano is Executive Managing Director of the Pension Fund Association of Japan. Prior to joining the PFA in this role in July 2001, Mr. Yano had an extensive and successful career with the Health and Welfare Ministry. He was Director of the Planning and Development Division of the Pension Fund Association from 1981 to 1992, Manager of the Planning Division of the Pharmaceutical Affairs Bureau from 1992 to 1994, Manager of the General Affairs Division from 1994 to 1995, Counselor of the Minister's Secretariat in charge of pensions from 1995 to 1996, and Director of the Pension Bureau from 1996 to 2001.

U.S.-JAPAN PENSION FUND ALTERNATIVE INVESTMENT CONFERENCE

February 2004

OPENING REMARKS



HIROSHI TADA
President of the Pension Fund
Association of Japan

It goes without saying that in the past few years, we have seen a strong crosswind blowing toward pension asset investment. You have

had to make extreme efforts to improve investment performance, but it seems that the Japanese economy is showing signs of firming, and with your support, revision of the law toward better corporate pension plans is starting. At last, we are starting to see a strong tailwind behind program reform and the investment environment, but we cannot be complacent. We must continue to work hard to gain better investment results for pension funds. Capital markets are undergoing major transformations, and that means that there will be increased choices available to us all. We have to expand our horizons to the new investment techniques and investment fields, beyond the current investment framework such as bonds and stocks, both in Japan and abroad. There is no magic wand in asset investment; each of us faces a different situation in our pension funds. We need to identify the essence of this new world and pursue the best investment methods for each pension fund. We cannot follow others blindly—that could lead to major errors.

We will be hearing firsthand views on alternative investments by pension funds. There is no single solution. The reason we have called this gathering a conference and not a seminar is because we wanted this to be an active occasion for exchanges of views. We hope you find this program worthwhile and it helps you in your day-to-day pension fund management. I would like to thank all of you who made this event possible and who have supported us in the holding of this conference. Thank you very much.



YUZABURO MOGI
Trustee Emeritus, Columbia University;
President and CEO, Kikkoman Corporation

As you know, employee pension funds have been hindered by recent difficulties in the economy. Pension funds are positioned as a major

investor group in the equity market, and pension investment management has had, and still has, a major impact on corporate performance. With prolonged poor performance in the equity markets and extremely low interest rates, we anticipate low investment returns in the interim period. Many

corporate pension funds are experiencing underfunding, and although most recently we have seen some improvement (and experts say this difficult situation is finally coming to an end), the situation is quite difficult in terms of investment returns to pension funds. Given this situation, expansion of investment and improvements in the efficient management of pension assets are very important. This leads me to the topic we are gathered here to discuss. That is, many pension funds are now considering allocations to alternative investments. From the point of view of improving investment, particularly with regard to managing risk, we need to diversify, but there are different types of vehicles available. It's important that we assess and compare the nature of each carefully.

We have experts from each area of investment to give us a detailed explanation of exactly that—the nature of the different forms of alternative investment. We can expect diversification as an important effect of alternative investments, but at the same time, this will require heightened risk management. We are in a very difficult investment era, and we hope you find this conference worthwhile in leading you to a better understanding of alternative investment vehicles.

PART I: COMPARISONS OF U.S. AND JAPANESE CORPORATE PENSION FUND ASSET ALLOCATIONS IN ALTERNATIVE INVESTMENTS



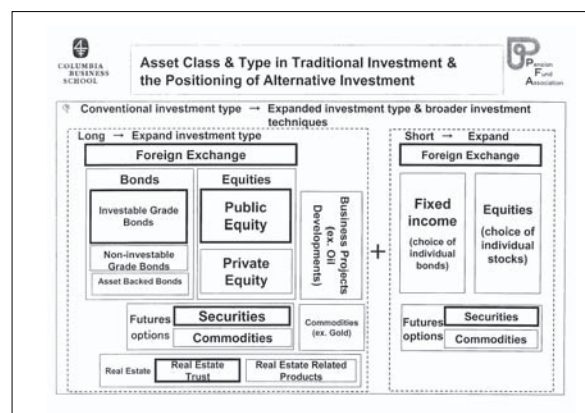
YASUCHIKA ASAOKA
Executive Director, Pension Investment,
Pension Fund Association of Japan

Why the interest in alternative assets now? For one, the Japanese stock market has been quite weak, and as a result many pension funds are experiencing underfunding. This is a global phenomenon, but it is particularly the case in Japan, so that is one motivation for the interest. Market volatility has also increased, and therefore market risks in the short term have become larger. We also have new accounting standards and as a result the performance of pension funds affects the plan sponsor's accounts significantly. At the same time, in global capital markets and economies, it is difficult to expect continued high rates of growth in the future. The world's capital markets are changing rapidly, and financial technologies have advanced. New vehicles, new investment methodologies, and new technologies are now available. We need to invest under these new circumstances, and in Japan nearly all the old regulations have been removed in pension fund management. It is now up to the pension funds and plans themselves to invest in the way that suits them, meaning that more efficient and effective pension fund investment has become extremely important. Last year, there was a report in the *Financial Analysts Journal* that argued that in order to capture added value, one couldn't simply rely on the capabilities and skills of fund managers; however, it is better to place the least constraints on management. This emerged as a sensational report and was accepted as an "eye-opening" sort of stimulus. This recognition has pushed forward expansion in the interest in alternative investment, both in the U.S. and Japan.

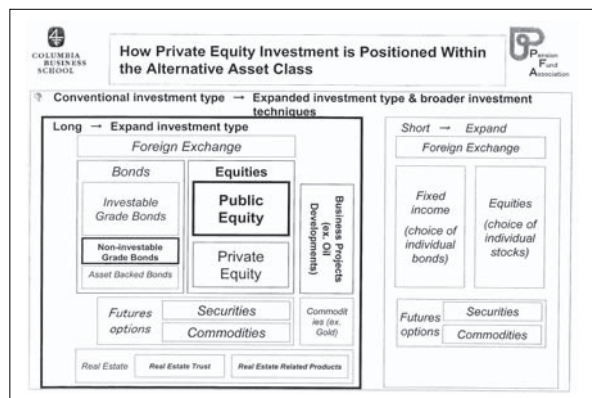
There is no clear single definition, no clear categorization of alternative investments. We might say that this is an asset class that is outside traditional public equity or bond asset classes. Methods of investment differ from traditional methods. Many strategies are called alternative investments, but we might highlight the following common characteristics that are in contrast to the traditional modes of investing: limited liquidity; difficulty obtaining market evaluation with few good benchmarks for referencing performance; less information disclosure; considerable disparity in investment performance (much of which is not necessarily good); high fees; and, in many cases, debt financing is used to push up leverage,

which of course could produce potentially higher returns but at higher risk.

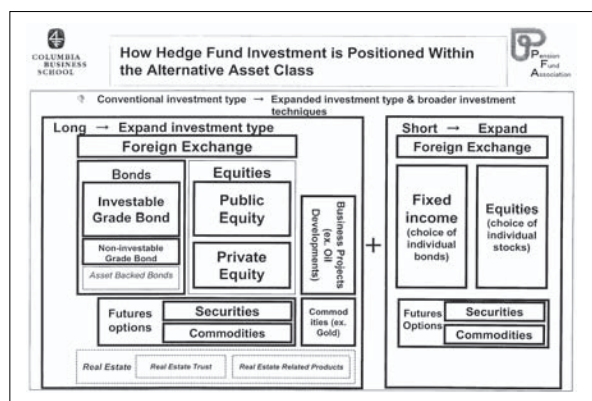
There are many kinds of alternative investments, but I would like to highlight three types: private equity investment, hedge fund investment, and real estate-related investment products. Here's a bird's-eye view of the positioning of three types of alternative investments in relation to the traditional core investment, which consists of stocks and bonds, the sort of investment in which you keep a long buy and hold and when the need arises, you sell investable grade bonds. Public equity has been another core investment vehicle in traditional investing. Foreign exchange has also become an investment vehicle. Long hedges, short hedges, sometimes futures and also real estate (particularly in the form of real estate trusts), shorting of currency and stock and bond futures are also vehicles used to hold short positions. These are nontraditional vehicles, but when you talk about fixed income, it is not limited to investable, high grade; you also have speculative grades and structured products like asset-backed bonds. Equities are not just public equities; there is a considerable range of private equities. There are futures in securities, but you can also use futures in commodities and they are traded. Gold is, of course, a commodity in which you can invest directly. Real estate is not limited to real estate trusts; there are other real estate-related products that are offered in wide variety these days. Oil development projects are also possible candidates for investment. You are now seeing expansion into these alternative vehicles, even in the short position. We have more investment vehicles available to us, and that requires us to be more efficient in tapping the potential of these new vehicles.



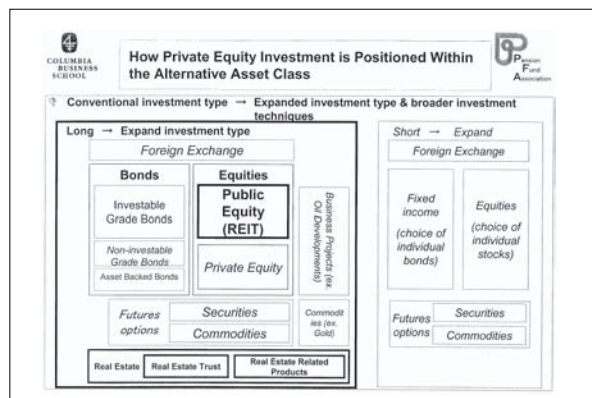
Where is private equity going to be positioned in this overall picture of the investable universe? I think, mainly in the equity area, but it is also in investing in private equities and some low-grade bonds and some projects, too.



What about hedge funds? In general, hedge funds do not invest in real estate, but they invest in everything else.



What about real estate investing? Anything that is related to real estate can be regarded as investment, and company-type listed vehicles are now available in relation to real estate (and there are other types included), but in terms of alternative investment, the motivation is the same in that you really want to tap into as many possible vehicles as possible.



Private equity, hedge funds, and real estate would be the focus areas. Private equity is a method of investing in privately-held companies. Particularly in Japan, venture capital, leveraged buy-outs, and mezzanine are the leading types utilized currently in the area of private equity. In terms of investment vehicles, partnerships, single-fund partnerships, partnership kinds of funds, and secondary trading in funds are done.



Private Equity

In private equities, the time frame is defined at the beginning. The end of the investment period is predetermined, and the life period of the fund is predetermined. The amount of the investment is also predetermined. The amount of the commitment is clarified at the beginning. Of course, you don't pay the commitment amount at one time; you pay in as capital is called for, because when the manager identifies the investments, they call on you to pay in that committed amount. Whether there is going to be a capital call or not could also be considered one of the specific features of private equity. There is a J-curve effect to realization of returns. When it is realized, you get a receipt of the realized returns, but these are not really coming back to you overnight. You have to wait at least a couple of years before you can reap the benefits of your investments. Compared to listed equity, the private equity market is less efficient, and liquidity tends to be smaller. So, once you buy into this position, it is very difficult for you to exit in a very short period of time. You have to be prepared to be in for the long haul. It is very important to have considerable commitment on the part of the fund manager; the "hands-on" approach is needed to realize the improved value of the investment.


With regard to the types of funds, the *tokumeikumiai* anonymous cooperative is most common here in Japan. Here, the general partner has unlimited responsibility and a limited partner has limited responsibility. Pension plans usually become limited partners, not general partners. You can invest in all phases of private companies; the important thing is how to truly realize returns. You need an "exit strategy." You do the initial public offering or merger and acquisition, and as you look at this exit portion, depending on the situation of the stock market, there would be a major impact of how successful you would be in implementing your exit strategy.

Hedge Funds

There are a variety of definitions for hedge fund investments. I like the definition used by Frank Russell and Goldman Sachs: "A skill-based investment strategy that generally involves the use of leverage and/or short selling, and a fee that is based on performance" (Goldman Sachs International and Russell Investment Group Report


 <p>COLUMBIA BUSINESS SCHOOL</p>	<h2 style="text-align: center;">Difference between Hedge Fund Investments and Traditional Investments</h2>	 <p>Pratt Institute</p>															
	<h3 style="text-align: center;">Comparisons with Traditional Active Investment</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th><th style="width: 35%; text-align: center;">Traditional Active Fund Management</th><th style="width: 35%; text-align: center;">Hedge Fund Management</th></tr> </thead> <tbody> <tr> <td style="text-align: center;">Modus Operandi</td><td>Identify inefficiencies in the market; make investment decisions based on unique information. Buy low and sell high.</td><td></td></tr> <tr> <td style="text-align: center;">Investment Risk</td><td colspan="2">Virtually no risk-free investments exist.</td></tr> <tr> <td style="text-align: center;">Investment in over-valued stocks</td><td> <ul style="list-style-type: none"> • Sell securities in possession • Do not invest in overvalued stocks </td><td style="text-align: center;">• Short sale is permitted</td></tr> <tr> <td style="text-align: center;">Investment Targets</td><td> <ul style="list-style-type: none"> • Invest in underline securities • Invest in derivative securities only for the purpose of hedging </td><td> <ul style="list-style-type: none"> • Invest in underline securities • Invest in derivative securities for non-hedging purposes • Invest in non-underline securities </td></tr> </tbody> </table>		Traditional Active Fund Management	Hedge Fund Management	Modus Operandi	Identify inefficiencies in the market; make investment decisions based on unique information. Buy low and sell high.		Investment Risk	Virtually no risk-free investments exist.		Investment in over-valued stocks	<ul style="list-style-type: none"> • Sell securities in possession • Do not invest in overvalued stocks 	• Short sale is permitted	Investment Targets	<ul style="list-style-type: none"> • Invest in underline securities • Invest in derivative securities only for the purpose of hedging 	<ul style="list-style-type: none"> • Invest in underline securities • Invest in derivative securities for non-hedging purposes • Invest in non-underline securities 	
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Real Estate



COLUMBIA
BUSINESS
SCHOOL

Real Estate Related-Investment Products



Japan
Real Estate
Association


④ In Japan

- ① Up to now most investments were made with an expectation that (long term) appreciation of real estate holdings will be achieved
- ② With new laws introduced, new types of real estate investment products have been introduced in the market

Real Estate Ownership → More Fluid

- Separation of ownership and management
→ specialized on commercial property management
- Fixed cost → floating cost
→ ex: sales & rental of HD buildings
- Inefficient use of assets in possession
→ creation of added value etc.

Investment Fund has emerged as a vehicle



The diagram illustrates the structure of real estate investment products in Japan. At the top, 'More Investments' leads to '(J-REIT)'. Below this, 'Collateral Securities' are shown. A central vertical box represents 'Real Estate Trusts', which is divided into 'Specialized Trust Products' (containing 'SPC Bonds' and 'SPC Bonds*') and 'Smaller Trust Products' (containing 'Private Real Estate Fund', 'Non-core', and 'Core'). To the left, 'Equity' is linked to the 'Real Estate Trusts' box. To the right, 'Debt' is linked to the 'Collateral Securities' box. At the bottom, 'Actual Real Estate' is linked to the 'Real Estate Trusts' box. Arrows indicate the flow of investments and assets between these components.

Source: NLI Institute, edited by Asakawa

© New RMBS Residential Mortgage Backed Securities
CMBS Commercial Property Mortgage Securities (S)

About This Conference

8 | U.S.–Japan Pension Fund Alternative Investment Conference | February 2004

investment contract? How can we confirm the method of cancellation beforehand? With regard to traditional active investment, depending on the asset class, the asset size of the investment and the expected excess return seem to show disproportionate linkages. How does this work out in alternative investments? What precautions should we exercise in terms of risk management? How do we ensure proper fiduciary responsibility on the part of fund managers? How do we recognize appropriate valuation and avoid the scandals inappropriate valuation has led to in the hedge fund industry? GIPS was introduced in January 2004 for fair valuation, but still, many other methods of valuation are utilized and GIPS may not be sufficient. In December 2005 there will be fair valuation in real estate, but the minimum requirement here is once every three years and this seems insufficient. How do we obtain information on the market value of real estate funds? These are likely to be some points that will be taken up by the speakers during this conference.

The conference is divided into two sessions. The first session assesses the status quo of Japanese and U.S. pension funds, how they are involved in alternative investments, and the differences between Japan and the United States. The second session is composed of three panel discussions. First, from the perspective of both the United States and Japan, in each of the asset classes of alternative investments, a presentation will be given by the plan sponsors who actually invested in these assets. They discuss the good and the bad points, taking into account the results of the analysis carried out in this pension fund survey. Finally, we have a keynote closing speech to wrap up the points discussed in this conference.



AKIHIRO NAKAMURA
Chief, Investment Research
Department, Pension Fund Association,
Japan

I will discuss the Japanese alternative investment situation for pension funds based on two surveys, both

of which took place toward the end of March 2003.

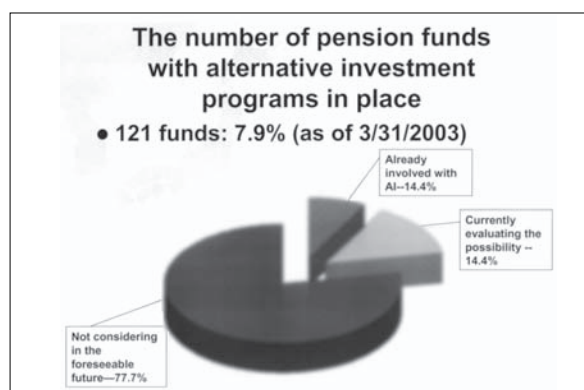
The first set of surveys was done on pension funds. We received responses from 1580 pension plans and the response rate was 95.4%. The other was a survey done on managers. We received responses from 109 managers, which covers 99% of pension funds assets contracted.

Japanese Corporate Pension Funds in Alternative Investments

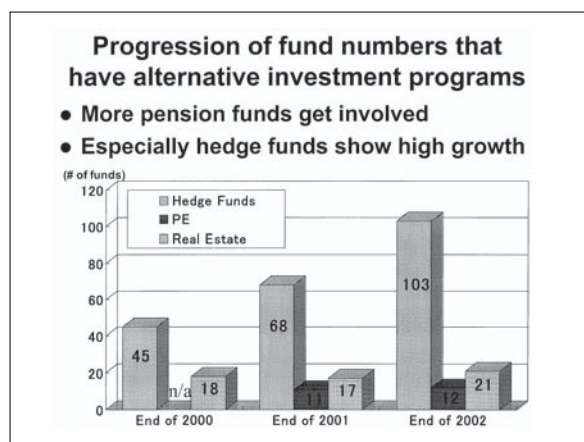
Let me begin by telling you about the fund size. As of the end of March last year, 583 billion yen of alternative investment made against 4.8 trillion yen, so the percentage was 1.3% of gross asset management by all pension funds. Approximately 80% of allocation into alternative investment vehicles was in hedge funds.



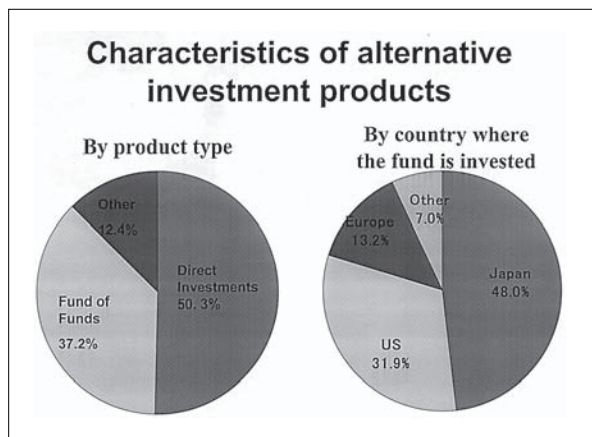
One hundred and twenty-one funds allocated, and this is less than 10% of all funds. This is not much, but about twice as many as are currently allocating are considering the possibility, so there is a high level of interest toward alternative investments by pension funds.



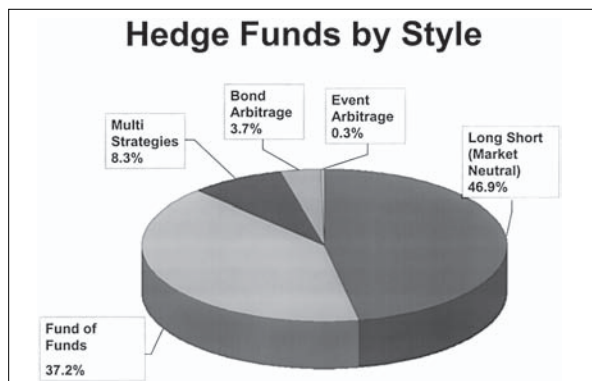
Ninety percent of the pension plans allocating in alternative vehicles are investing in hedge funds. Of course, some funds invest in a multiple number of alternative vehicles. Let me give you a three-year trend of funds now allocating; looking at the situation starting from the end of 2000, we are seeing a gradual increase. A majority of the increments come from increases in hedge fund investment, pushing up the overall alternative investments by pension funds.



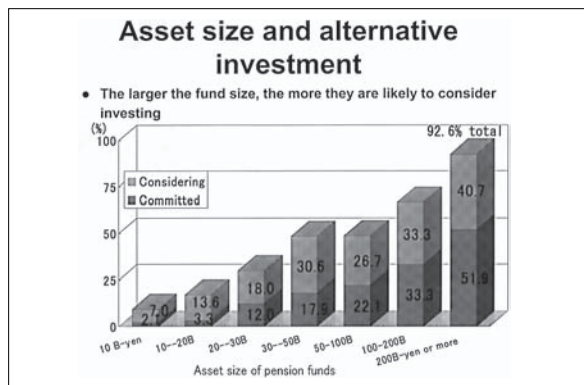
Looking at allocated alternative investment products based upon the questionnaire survey conducted of managers by percentage in product type, direct investment in specific funds came to about 50% of the investment; 37.2% of the investment went into fund of funds. By country, domestic as well as yen-denominated investments accounted for 48%; 32% of investments went into



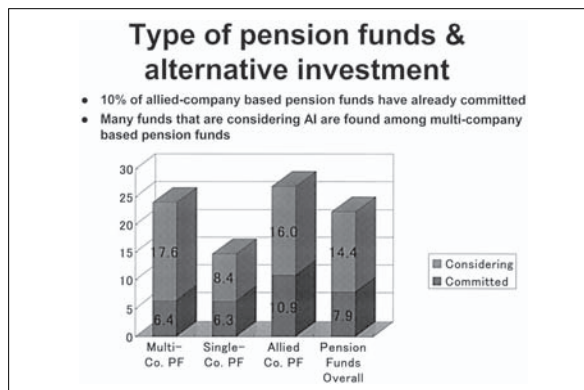
U.S. or dollar-based funds and 13% into European funds. By style of hedge fund investment, long-short, including market neutral, came to 46%. Multiple fund of funds, including multiple styles, amounted to 37%, but the majority of fund of funds are long-short or market neutral in the case of Japan, which means that the majority of alternative investments made by Japanese pension funds are in hedge funds of market-neutral style.



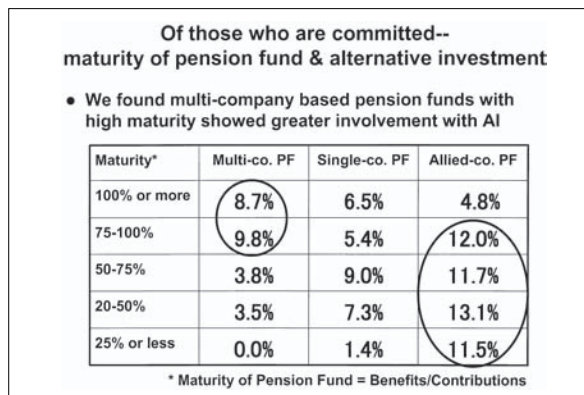
Those who are actually allocating or considering allocating were asked about how their decisions relate to asset size. The larger the pension funds, relatively speaking, the more likely they are to invest in alternative investments. The tendency is the same among those considering allocations. If you focus on the largest group, those of 200 billion yen or more, if you add those considering and committed, it amounts to more than 90%, which means that the largest pension funds are actually allocating or considering allocating into alternative investment vehicles.



With regard to the types of pension funds, about 10% of the allied companies pension funds of affiliated companies are allocating. Those who are considering the most are multiple-company pension funds.



Looking at the relationship between maturity of pension fund and alternative investment, (maturity is defined by benefits and other outlays divided by contributions and other revenues; contributions alone are not enough to pay benefits), in the case of allied company pension funds, those who are relatively low in maturity tend to invest in alternatives. Among multiple-company pension funds, you can see that higher maturity pension funds tend to invest more in alternatives.



Similarly, for those considering alternative investments, the tendency is more or less the same as before.

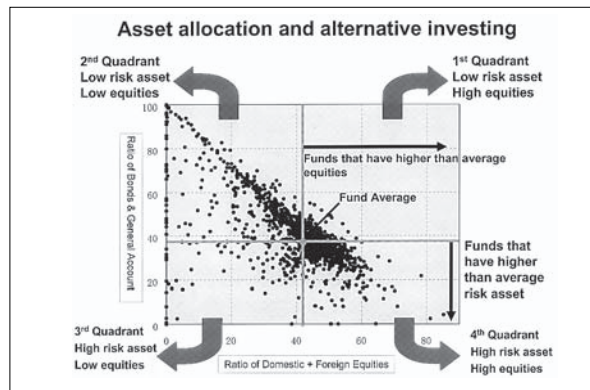
**Of those who are considering--
maturity of pension fund & alternative investment**

- We found multi-company based pension funds with high maturity showed greater interest with AI

Maturity*	Multi-co. PF	Single-co. PF	Allied-co. PF
100% or more	22.0%	6.5%	10.6%
75-100%	22.0%	10.8%	14.5%
50-75%	13.0%	8.0%	20.3%
20-50%	12.3%	8.3%	13.7%
25% or less	14.3%	8.7%	23.0%

* Maturity of Pension Fund = Benefits/Contributions

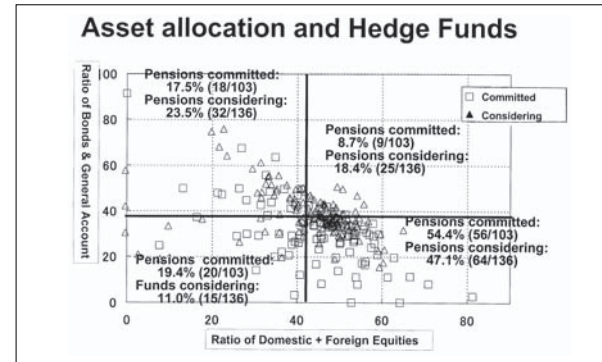
Looking at the relationship between alternative investment and asset allocation, as of the end of March of last year, we examined, on the horizontal side, the ratio between domestic versus foreign equities and,



vertically, the ratio of bonds plus general accounts. The chart shows the overall distribution of all the pension funds studied. Green shows the average. Using that average as base, if you draw a line vertically, all of the funds on the right-hand side show pension funds with higher than average equity proportion, and if you draw a horizontal line from the average, everything below means funds have higher than average risky assets, because this is looking at bonds and general account ratios. The higher you go, the lower the risky asset, which means that below this line funds have higher than average risky assets. You can use the two green lines to arrive at the quadrants. The first quadrant shows funds that have higher than average equity, but have low-risk assets. In other words, convertible bonds and other risk assets are not invested in, although they have higher equity. All in all, we have lower risky assets. Left top is the second quadrant. This shows relatively a low risk asset funds, so asset allocation approach taken by these plans are not into risky assets. The third quadrant has low equity ratio, but foreign-denominated bonds and convertible bonds are being invested in heavily, which means that the risk is higher. The fourth quadrant shows a high equity ratio and a high risky-asset ratio.

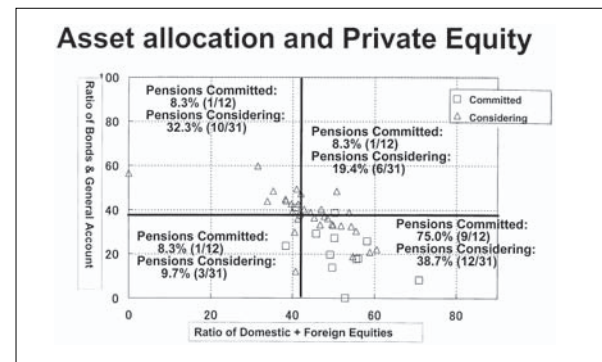
We can use average fund as a base to arrive at the four quadrants in terms of asset allocation and alternative investing. We would like to look at each one in terms of different investment vehicles.

Looking at the ratio of bonds and the general account ratio of domestic and foreign equities as seen from hedge funds, there is considerable variability, but we can use the same quadrant.

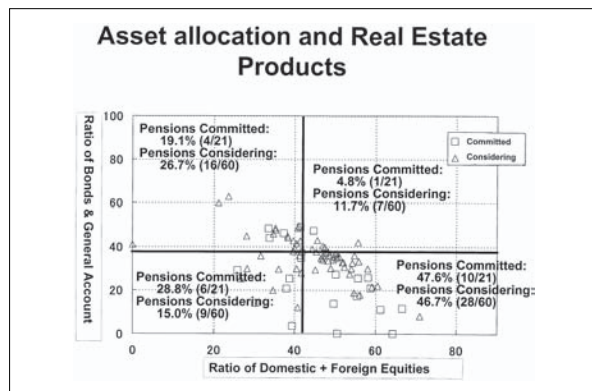


The fourth quadrant shows that hedge fund investment is higher for those companies that invest more in equities and take higher risks. If you look at those considering allocation, you can see that the right lower quadrant pension funds tend to consider more. We are also seeing more funds considering investment. They are clustered in the middle. Those who are close to the average means asset allocation is more or less average. Those who are considering tend to have average asset allocation mix.

Moving on to private equity, the sample in this case is quite small.



Of those pension funds now allocating to private equity, most of them are now in the fourth quadrant. If you increase the area slightly, you can see that almost all of the pension funds now investing in private equity are in the right, lower right. In other words, those pensions who take greater risks and who invest in equities tend to invest in private equity. You can see that of those who are now considering, 38.7% belong to the fourth quadrant.



Lastly, with respect to real estate products, again, looking at the right lower quadrant, those pension funds having greater risk assets tend to be the ones investing in real estate products. If you include those considering investment, you can see that three-quarters of the funds now allocating in real estate products belong to this group. Looking at the pension funds considering, again, many are in the fourth quadrant, but we see a shift toward the mean. Thus far, I have tried to show you the relationship between asset mix and allocation in summary for hedge fund, private equity, and real estate products.

Pension funds with higher risk-asset ratio tend to be involved more.

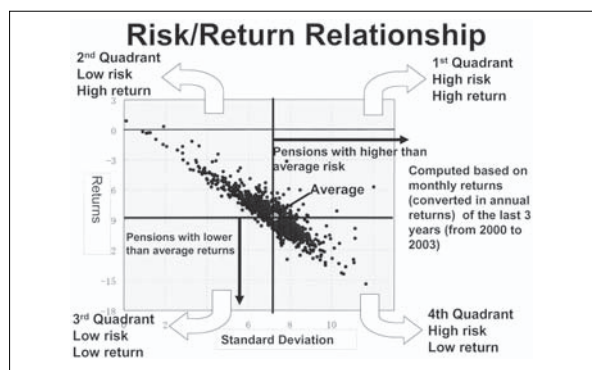
Summary

Asset allocations & AI

• Pension Funds with higher ratio of risk assets show more involvement with AI

	Ratio of risk assets: High		Ratio of Equities: High	
	Committed	Considering	Committed	Considering
Hedge Funds	73.8%	58.1%	63.1%	65.4%
Private Equity	83.3%	48.4%	83.3%	58.1%
Real Estate Products	76.2%	61.7%	52.4%	58.3%

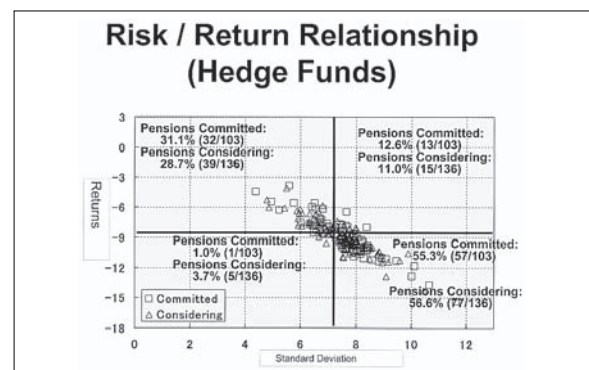
Let's examine the relationship of risk vs. return.



Looking at the converted annual returns for the last three years from 2000 to 2003, the mean fund average is shown by green. Unfortunately, in the past three years, equity markets have not done well in Japan, or else-

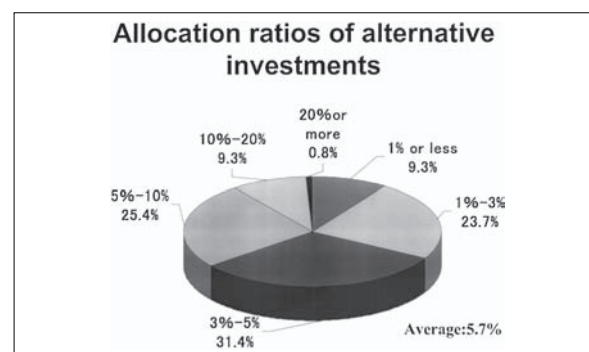
where, and so we have a downward sloping situation. Those who took risks tended to do poorly. If you use the fund average to draw vertical and horizontal lines, anything right of the vertical line shows pensions with higher than average risk. Everything below the horizontal line means pensions with lower than average returns. Again, we can use four-quadrant analysis. The first quadrant is high risk, high return. The second quadrant is low risk, high return. The third quadrant is low risk, low return. The fourth quadrant is high risk, low return.

This is the risk-return relationship for those investing in hedge funds: the fourth quadrant has the highest proportion, and this has high correlation with the asset allocation relationship in the quadrants earlier. As a

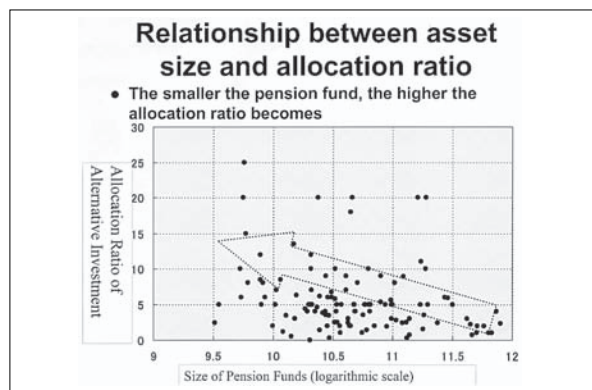


result, these pension funds ended up in high risk, low return. The funds that are considering investment are more or less included in the fourth quadrant. So far, I have looked at asset allocation and the risk-return relationship, and these pension funds belong to more or less the same quadrant. However, the pension funds may be able to assume a higher level of risk and thus may have decided to invest in alternative asset classes. Alternately, perhaps due to the low level of returns in the past several years, they have decided to pursue higher returns, thus deciding to invest in these alternative asset classes. From this survey alone, we cannot analyze the entire situation and the reason for being committed to the alternative investment, but this appears to be the status quo.

What about the allocation ratios in alternative investments?



A 3–5% allocation ratio is carried out by 31.4% of the pension funds. The average is 5.7%. Horizontally, the sizes of the pension funds are given in a logarithmic scale, so that as you go to the right, the pension funds would be larger in size (this chart shows the distribution).



Vertically, one can see the allocation ratio of alternative investments. There is some variance here, but it seems that those pension funds toward the left show higher levels of allocation in alternative investments as an overall trend. If the asset size is less than 10 billion yen, 9.5% is the average allocation ratio to alternative investment. About 2.8% of the pension funds that have a size of 200 billion yen or more are allocating their assets in alternative investment. The larger the size of the pension fund, the greater the amount being invested, and this is growing.

Allocation ratio by asset size		
Asset Size (in \ billion)	Ave. Allocation Ratio	Amount Invested (billion)
10 or less	9.5%	0.6
10–20	5.2%	0.75
20–30	5.5%	1.33
30–50	5.7%	2.31
50–100	4.7%	3.45
100–200	6.5%	10.59
200 or more	2.8%	12.0
Average	5.7%	4.24

Investment Objectives and Concerns

The pension funds that have decided to invest and those considering investment have four basic reasons that inform their decisions. We asked the pension funds to select the two top reasons, which is why if you add up all these numbers, it doesn't reach 100%. "Absolute returns to be expected" and "diversification of the investment" are the two major reasons cited by the pension funds for investing in hedge funds. For private equity and real estate-related products, the greatest reason cited was "long-term total returns," so depending on the type of asset class, there were different reasons cited. About 20% of pension funds said they would be able to limit their risk. This includes both the pension funds that were considering the possibility of investment and those who have already committed.

Reasons for investing in AI

	Hedge Funds	Private Equity	Real Estate Products
Diversification	61.0%	54.6%	41.2%
Absolute Returns	66.2%	18.2%	41.2%
Long term total returns	13.0%	63.6%	70.6%
Limited risk	19.5%	0.0%	5.9%

When limited to those now considering alternatives, the greatest reason cited was "diversification." In the past several years, performance was not very clear, so by having further diversification in the asset classes in which they are investing, some fund managers say that the return is improving. This may be improving the

Reasons for investing AI (for those who are considering)

	Hedge Funds	Private Equity	Real Estate Products
Diversification	67.5%	63.3%	78.6%
Absolute Returns	62.7%	36.7%	41.1%
Long term total returns	14.3%	46.7%	53.6%
Limited risk	27.8%	13.3%	17.9%

mindset of the pension funds in going for alternative investments. Quite a few pension funds actually considering the possibility say that the risk may be limited, and the ratio of those pension funds citing limited risk as a reason is higher for those who are considering compared to the already-committed pension funds. What are the major differences in motivation between the already-committed pension funds and pension funds that are considering? Absolute returns are expected by pension funds in the second and the fourth quadrants. Recall the chart discussed earlier; the second quadrant in terms of the asset allocation is characterized by the

Reasons for investing AI (for those who are considering)

	Hedge Funds	Private Equity	Real Estate Products
Diversification	67.5%	63.3%	78.6%
Absolute Returns	62.7%	36.7%	41.1%
Long term total returns	14.3%	46.7%	53.6%
Limited risk	27.8%	13.3%	17.9%

relatively low level of risk assets, whereas the fourth quadrant features a high level of risk assets, mainly investing in equities. These two types of pension funds show a stark contrast, but both expect high absolute returns. This is quite interesting. Limiting our analysis to pension funds that belong to the second quadrant, the risk asset is low, which means that under the low interest rate environment, they cannot really pursue high returns. Perhaps, as an alternative to investment in fixed income, they have decided to invest in the alternative asset classes. Others belonging to the fourth quadrant, as a result of pursuing their investment strategy, ended up with a relatively low return and thus may have decided to invest in alternative classes, rather than in equities. Limited risk was cited by those belonging to the third and the fourth quadrants, and the characteristics of these pension funds are that they have relatively high levels of risk assets and so they now want to limit their levels of risk.

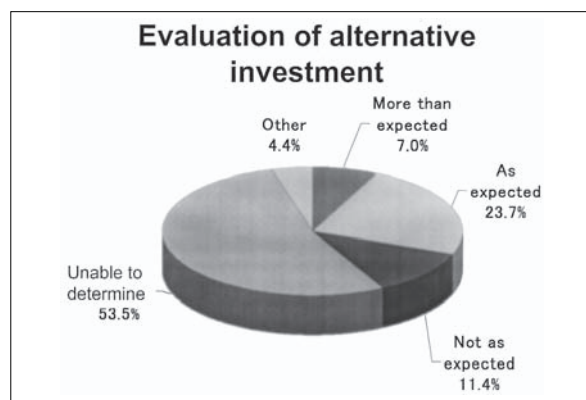
Let's look at maturity and risk and the reasons cited for investing in alternative investments as the expectation of high absolute returns. For pension funds with a maturity of 100% or more and as a result of assuming a rela-

Reasons for investing in AI (maturity & risk) Hedge Funds "Expectation of Absolute Returns"					
Risk-- Returns	Maturity				
	25% or less	20-50%	50-75%	75-100%	100% or more
I High risk High return		100.0% (33.3%)	100.0% (71.4%)	50.0% (0.0%)	75.0% (66.7%)
II Low risk High return	100.0% (80.0%)	66.7% (37.5%)	66.7% (71.4%)	25.0% (0.0%)	0.0% (66.7%)
III Low risk Low return	(0.0%)		(100.0%)		(50.0%)
IV High risk Low return	75.0% (50.0%)	50.0% (46.2%)	66.7% (73.7%)	57.1% (73.7%)	100.0% (64.7%)

Pensions who are considering AI are noted in ()

tively high level of risk, the past three years' performance was not very good. These would be those belonging to the fourth quadrant. They are actually pursuing those absolute returns by deciding to invest in alternative investments. For those who have actually invested in hedge funds, the sample size is quite limited. Only eight funds belong to the fourth quadrant. All pursue absolute returns. The brackets show those pension funds that are considering investing.

With respect to the evaluation of alternative investments, about 30% of the funds said that it was "as they have expected" and about 10% said the result was "not as expected."



Since the history in Japan of alternative investments is very limited, more than 50% of the funds said they are unable to reach a determination as of now. From the United States and Canada, we have representatives of pension plans who have a longer history of alternative investment. It would be very enlightening if they could share with us their impression of whether their gains were more than they had expected originally in investing in alternative investment or whether the results were below their expectation levels.

Summary

Alternative investments are not yet prevalent among Japanese pension funds, but more than double the current number of pension funds are actually considering the possibility of investment, and expectations of absolute returns and limiting risk are cited as the major reasons pension funds are contemplating investing in hedge funds. Although I did not discuss details, the dedicated managers in larger pension funds are great in number, and the larger pension funds have contracts with consulting companies. Thus, it may be said that these larger size pension funds have a system or an institutional framework in place that would allow them to be exposed to alternative investments. Also, the multicompany type pension funds with high maturity had greater exposure to alternative investments. Pensions who take risks, too, tend to have greater exposure to alternative investments.

When it comes to pension funds that are currently considering the possibility of making investments in alternative asset classes, these are average pension funds in terms of the asset allocation. The smaller the size of the pension, the greater the allocation ratio for alternative investments. Of course, the performance of alternative investments would have greater impact on those smaller size pensions because the amounts being invested in alternative investments would be a greater proportion of the entire portfolio. In order for larger pension funds to increase their allocation ratios, they would have

to start investing in larger funds. However, the consequent cost of management or evaluation would become significant. This may suggest that it is quite difficult for the larger pension funds to increase the allocation ratio for alternative investments because the fund size is at the moment quite limited. However, expectations are heightening in Japan with regard to the performance and the significance of alternative investments. Many expect diversification as a result of investing in alternative asset classes. Thank you very much.



MARK MASON
Director, Program on Alternative Investments, Center on Japanese Economy and Business, Columbia Business School

The topic of today's conference, of course, is U.S. and Japanese corporate pension fund participation in alternative investments. As we explore this important subject, we might want to keep in mind a few basic facts about the development of alternative assets more generally. First, many kinds of investments that today we call "alternative" are in fact very old and therefore, in some sense, "traditional," including investments in real estate, timber, gold and so forth. Even private equity, strictly speaking, has been around for centuries, for prior to the advent of public exchanges, virtually all investments in business enterprises were purchases of privately held shares because there were no public markets for the exchange of shares.

Second, there have been, at the same time, enormous changes in recent decades that have virtually redefined the alternative investments field. More complex and sophisticated methods have been devised to facilitate investments into and exits from a broader range of private equity and real estate opportunities. Hedge funds—first developed in the United States just after World War II—have grown in terms of assets under management, investment styles, management structures, and otherwise. And the range of investors has expanded and now includes high net worth individuals, family offices, banks, insurance companies, public and private pension funds, foundations, endowments, and others.

Third, what is in its modern form largely a Western field of investing is now being more widely adopted by individuals and institutions on other key parts of the globe—including, of course, Japan.

I have divided my presentation into three main parts. In the first part, I focus on U.S. corporate pension funds in alternative investments—examining these pension funds' current alternative investment allocations and strategies; investment goals, concerns, and methods; performance, at least as measured by the subjective level of

satisfaction; and expected future alternative strategies. In the second part, I compare U.S. with Japanese corporate pension funds in alternatives by identifying seven apparent similarities between the U.S. and Japanese experiences and 10 apparent differences between pension funds based in these two countries. Finally, in the third part, I try to briefly place the U.S. and Japanese corporate pension fund experiences into still broader international perspective.

One final note: The information I am providing here is by intention descriptive, rather than prescriptive. I will try to give you balanced, reliable information about this subject rather than tell you how you ought to act based on that information, because I think our first task here this afternoon is to gain a clear understanding of the facts about the complex and rapidly developing field of alternative investments. To provide as comprehensive yet detailed a picture of our topic as possible, I have drawn on two sets of original data. One data set is based on original survey work we conducted at Columbia Business School during the fourth quarter of last year—that is, October through December of 2003. This survey posed a range of questions about alternative investment allocations, strategies, and methodologies relevant to the corporate pension fund community. We identified and contacted the 100 largest U.S. corporate pension funds as ranked by reported assets under management (AUM) and have so far obtained a substantial but still incomplete response rate. Our work continues. At this stage in our research, we therefore cannot provide a conclusive set of findings, but based on our experience so far we believe the information that we have collected may provide a number of valuable insights into our broader conference topic.

In addition to the Columbia data for the U.S., I have, of course, drawn on the survey of Japanese corporate pension funds conducted by the *kosei nenkin kikin ren-gokai* and that Mr. Nakamura has just so ably described. Finally, to supplement the Columbia Business School data for the United States and to provide still broader international perspective, I have drawn on extensive research conducted by Greenwich Associates together with two charts contained in a 2003 report by Goldman Sachs International and the Russell Investment Group.

U.S. Corporate Pension Plans in Alternative Investments

What is the current level of U.S. corporate pension fund investment in alternative assets? Of the U.S. corporate pension funds that responded to the Columbia survey, roughly 75% reported that they participated in alternative investments of one category or another. Their average AUM stood at US\$5.6 billion with an average alloca-

tion of 10.6% and an AUM weighted average allocation of 10.3%.

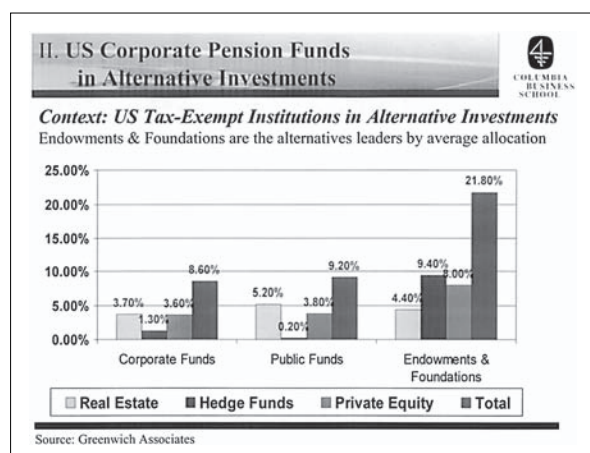
The broader universe of U.S. corporate pension funds surveyed by Greenwich Associates and shown on the following chart is consistent with the Columbia findings for large pension plans, but provides at least two additional factors helpful to understanding the broader U.S. situation because there are many, many pension funds in the United States, as there are in Japan, which are not so large. First, the average proportional allocation of U.S. pension funds in alternatives increases with

II. US Corporate Pension Funds in Alternative Investments					
US Corporate Pension Fund Asset Mix by Plan Size (2003)					
Type of Investment	Plan Assets				
	Total Corporations (838)	Over \$5 Billion (270)	\$1-5 Billion (270)	\$501 Million-\$1 Billion (201)	\$250-500 Million (288)
Base of Targeted Funds					
Active common stocks	30.2%	29.6%	30.3%	33.7%	32.6%
Passive common stocks	13.4%	11.1%	17.4%	14.8%	16.9%
Company's own securities	1.8%	2.4%	0.9%	1.3%	1.2%
Total domestic stocks	45.5%	43.0%	48.6%	49.9%	50.8%
Active international stocks	13.6%	14.4%	13.0%	11.4%	9.4%
Passive international stocks	1.6%	1.4%	1.9%	1.9%	1.9%
Total international stocks	15.2%	15.8%	14.9%	13.3%	11.3%
Fixed income	29.3%	28.8%	29.0%	31.7%	33.0%
Equity real estate	3.7%	4.7%	2.4%	2.0%	1.4%
Private equity	3.6%	4.9%	2.2%	0.9%	0.8%
Hedge funds	1.3%	1.4%	1.2%	0.9%	0.7%
Other*	1.4%	1.3%	1.6%	1.3%	2.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Dollar-weighted and projected to the Greenwich Associates universe. Data as of 6/30/03. Defined benefit plans only.
Source: Greenwich Associates

fund size. I am talking about assets actually invested. Second, U.S. corporate pension funds overall currently have far more invested in real estate (roughly 3.7%) and private equity (3.6%) of their total investments, than they do in hedge funds—which are currently estimated as of last year at just 1.3%.

To provide a broader context for the U.S. situation, I thought the audience might also be interested in the



relative participation of different categories of U.S. tax-exempt institutional investors in alternative assets. The key point I would like to make here is that endowments and foundations are the tax-exempt alternative leaders by average proportional allocation, followed by public

pension funds and, last, corporate pension funds.

Indeed, U.S. endowments and foundations apparently allocate, on average, more than two times the proportion of assets under management to alternatives as do U.S. public or private pension funds. The difference is far more striking if we just compare the allocations in hedge funds, where endowments and foundations have been extremely aggressive.

An obvious question is: why are endowments and foundations so relatively active in this field? There is no conclusive study on this topic to date, but some of the most probable reasons include the following. First, U.S. corporate pension funds are generally governed by ERISA, which sets the so-called “prudent person” investment standard—in effect, do not stray from relevant accepted practice. So, they are generally not the first to invest in and enter into new investment fields such as hedge funds and other alternative products. (I might add, by the way, that many U.S. public pension funds have also adopted this prudent person standard on their own initiative.) Foundations and endowments, however, are not constrained by this ERISA standard.

Second, the boards of U.S. corporate pension funds are made up largely of corporate officers, whereas the boards of U.S. endowments and foundations often are largely composed of wealthy, entrepreneurial people—many of whom have backgrounds in financial services and personal experience investing in alternatives. Endowment and foundation board members, in general, have therefore been much more understanding and indeed supportive of alternative investments than have their corporate pension fund counterparts.

Third, it appears that the managers of some of the leading U.S. endowments, such as Harvard University, who are in effect the opinion leaders in the endowment community in the alternative investments field, are today far more highly incentivized financially than are their U.S. corporate pension fund manager counterparts to seek new ways to maximize performance, which they have tried to accomplish in part through the creative use of alternative investing.

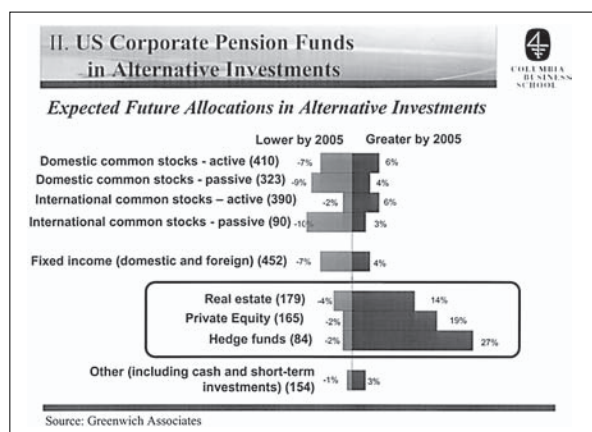
What are the leading investment objectives and concerns of U.S. corporate pension funds in alternative assets? Let's briefly summarize the Columbia findings by asset class. For private equity, the leading objectives are expected total returns (first) and diversification (second). The leading concerns are lack of liquidity, lack of private equity expertise at the pension fund, and legal structure of the potential investment. For hedge funds, the Columbia survey suggests that the leading objectives are diversification and expected total return and the leading concerns, on the other hand, are lack of transparency and volatility. Finally, for real estate in the United States, the leading objectives of the pension funds are diversification and expected total

returns and the leading concerns, paradoxically, are poor anticipated returns and, quite naturally, lack of liquidity.

Given the current level of interest in hedge funds, I thought it would also be useful to include a simple graph showing what investment structures U.S. pension funds favored when putting money into hedge funds. As you can see, according to Greenwich Associates, roughly 5% of U.S. corporate pension plans allocated to single managers, and about 7% allocated to funds of hedge funds, as of 2003. Continuing with our consideration of investment method, we then asked the U.S. plans how they chose alternative investment fund managers. In our survey, they told us that in-house research staff and gatekeepers or funds of funds were the most often used groups. When we asked them whether they have dismissed managers whose funds they had already invested in, more than 25% told us they had dismissed at least one manager in the alternatives field. We next asked the U.S. plans who performed the internal management of the alternative assets once purchased, and they told us that general and dedicated pension staff, rather than treasury staff or senior executives and so forth, were the people responsible.

To gain some understanding of performance, we inquired about the U.S. plans' level of satisfaction with their alternative investments. The vast majority told us their investments performed "as expected," and after that, the second most common response was "above expectation."

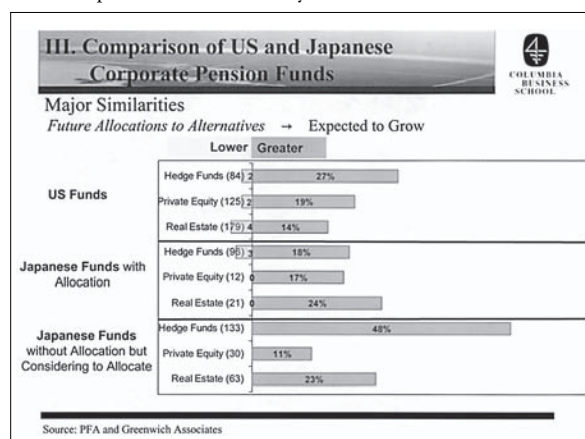
How do U.S. corporate pension plans expect to change their allocations in the future? Alternative investments are the only investment category where the average respondent plan expects to significantly increase allocations—to hedge funds (first), private equity (second), and real estate (third).



U.S. vs. Japanese Corporate Pension Plans in Alternatives

Next, I would like to briefly summarize the major similarities and differences I found when comparing U.S. and Japanese corporate pension funds in alternative investments. Starting with similarities, one clear point in

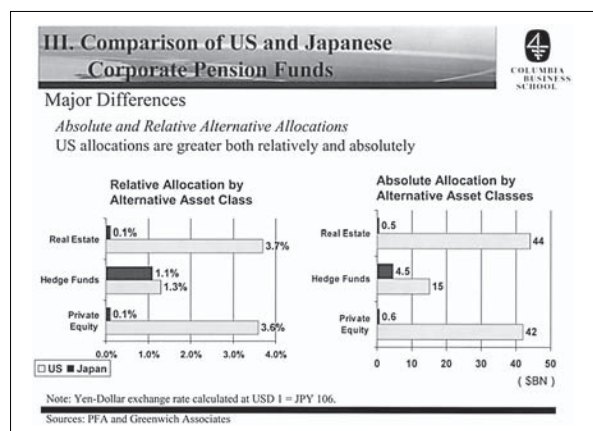
common is that in recent years, both U.S. and Japanese corporate pension funds have substantially increased their participation in alternatives. Second, it appears that U.S. and Japanese plans both identified diversification as the chief investment objective of their hedge fund investments. Third, both countries' plans point to diversification as the main objective of their investments in real estate. Fourth, U.S. and Japanese plans both point to lack of liquidity as the chief investment concern of their participation in private equity. Fifth, the U.S. and Japan both identified lack of transparency as the key investment concern when placing money into hedge funds. Sixth, there is at least some evidence to suggest that both U.S. and Japanese corporate pension plans are more likely to invest in hedge funds through funds of funds vehicles than through single manager investment vehicles, although frankly this is a topic of research that requires more work. The seventh, and final, similarity I would like to point out is that both the U.S. and Japanese corporate pension fund communities expect to substantially increase their allocations



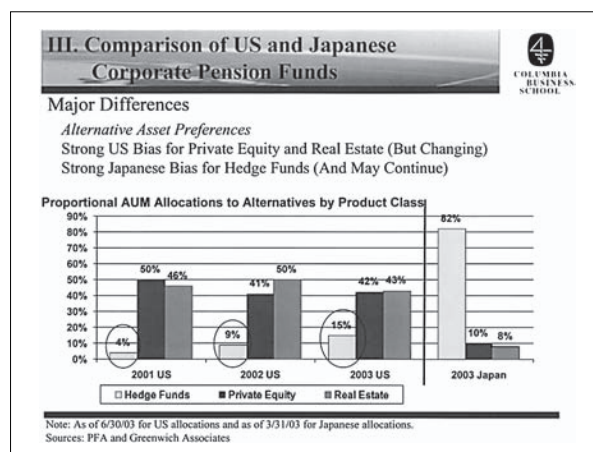
to alternative investments. It is also worth pointing out that the U.S. and much of the Japanese pension plan community seem to anticipate making their largest relative alternative increases in hedge funds. The Japanese data from plans now considering investing in alternatives points to this, and virtually all of the data I have found for the United States tells this same story.

Why, I am often asked, are U.S. corporate pension plans so enthusiastic about hedge funds? I think there are at least three main reasons. First, U.S. plans are looking for new investment options, following a number of disappointing and, frankly, often volatile years in the public markets. Second, some hedge funds apparently have different risk-return profiles than the traditional asset classes and in such cases may act as a helpful diversifier in shifting out the efficient frontier. Third, the proliferation of hedge funds has created greater supply (or capacity) and a large number of hedge fund product types in which U.S. corporate pension funds can invest.

What are the differences between U.S. and Japanese corporate pension plans? For one, allocations into alternatives by U.S. corporate pension plans substantially exceed their Japanese counterparts, both relatively and absolutely. I suppose it is important to point out in this regard, of course, that only in recent years have changed Japanese government regulations made it relatively easy to invest in various alternative products.



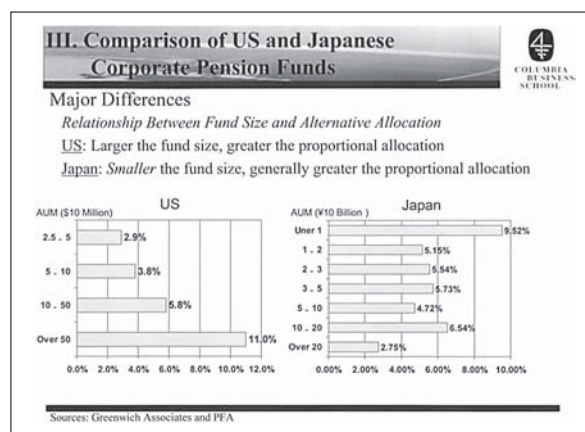
A second notable difference relates to specific alternative asset preferences. As I indicated before, in the U.S. there has been a strong bias, at least up until now, for investing in real estate and private equity, whereas in Japan, there has been a clear preference for hedge funds.



Having said that, however, there now appears to be a major shift under way in the U.S. to substantially increase relative allocations to hedge funds. Indeed, the historical data alone suggests that the average allocation to hedge funds by U.S. corporate pension funds as a proportion of total allocations to alternatives stood at just 4% in 2001, but it increased to 15% by 2003. This is indeed an important, ongoing shift in the United States.

Third, there is a striking contrast between the United States and Japan concerning the relationship between fund size and alternative allocation. In the U.S., the larger the pension plan, on average the greater the

proportional allocation into alternatives—whereas in Japan, on average the *smaller* the pension plan, generally the greater the proportional allocation. Here, I am talking about Japanese pension plans that have actually invested in alternatives, rather than about plans that are considering investment in the future. The more limited participation by large Japanese plans may be related to a reported lack of adequate capacity in quality hedge fund products in Japan in favored styles, such as market neutral, but that is pure speculation.



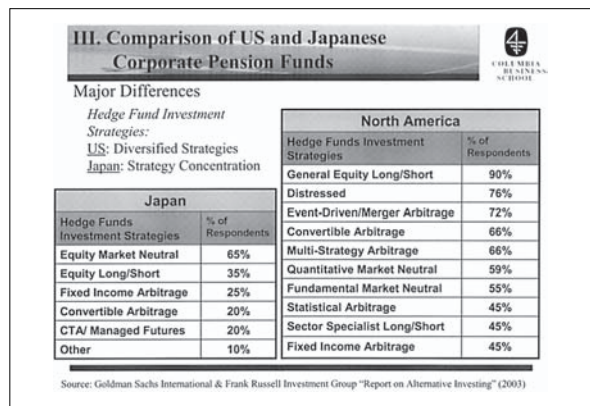
Fourth, the chief objective of U.S. pension plans in private equity appears to be expected total returns, whereas for their Japanese counterparts it appears to be diversification.

Fifth, the chief investment concern of U.S. pension plans in real estate appears to be poor anticipated returns, whereas for their Japanese counterparts it is lack of transparency.

Sixth, after in-house staff, the U.S. pension plans rely heavily on gatekeepers and funds of funds to help them with manager selection, whereas the Japanese plans, together with in-house staff, rely heavily upon *traditional* investment managers to aid in the alternative manager selection process. This is an important point of differentiation between U.S. and Japanese financial intermediation and one that will certainly require further study and analysis.

Seventh, whereas more than a quarter of the surveyed U.S. pension plans had dismissed at least one alternative manager they had already invested in, a mere 9% of their Japanese plan counterparts had done so. This is just a guess, but I would imagine this is related to the relatively shorter amount of time that Japanese plans have participated in the alternative investments field.

Eighth, with respect to hedge fund investment strategies, there is at least some evidence to suggest that U.S. plans tend to invest in a relatively diversified range of hedge fund styles, whereas their Japanese counterparts appear to concentrate their hedge fund investments into a relatively small number of hedge



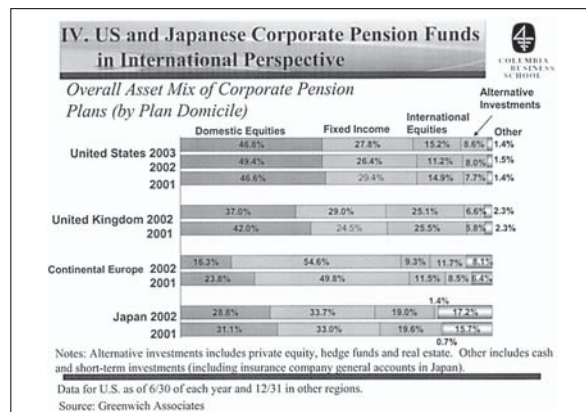
fund strategies, especially market-neutral and long-short styles. I think this is a very important distinction.

Ninth, and this will probably come as no surprise to anyone here, given the different lengths of experience of the U.S. and Japanese pension communities in the field, the U.S. plans report their investment satisfaction in alternatives as "as expected" or "above expectation," whereas the Japanese plans, quite naturally, hold it is either "too soon to tell," or "as expected."

The tenth and final difference I would like to point out relates to the broader context of tax-exempt institutions in both countries. In the United States, corporate pension funds, as previously suggested, rank as the lowest alternative allocators among that country's tax-exempt institutions, whereas in Japan, corporate pension funds at least *appear* to rank as the *highest* alternatives allocators among Japan's tax-exempt institutions. It is indeed my understanding that in Japan only a handful of endowments and foundations together have invested only relatively small amounts in alternatives, and that public pension funds are only now beginning to seriously consider such investments.

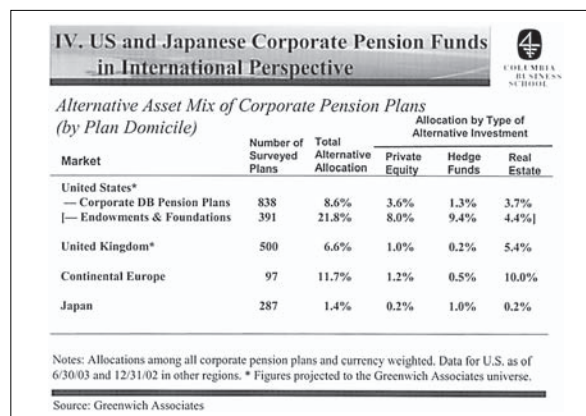
U.S. and Japanese Corporate Pension Plans in International Perspective

In this last part of my presentation, briefly, I will try to place the U.S. and Japanese experiences in broader international perspective by including the United Kingdom and Continental Europe into our larger picture. Together with the United States and Japan, the United Kingdom and Continental Europe also manage large corporate pension funds as measured by AUM. When we include these other locations in our analysis, one point that clearly emerges is that Japan is something of an outlier in terms of the relative proportions of assets its plans have invested in alternative investments as compared not only to the United States, but also to Continental Europe and the United Kingdom as well. As you can see from the following chart, in 2002 roughly 8% of U.S. corporate pension assets were invested in alternatives. In the UK, the figure stood at 6.6%, in



Continental Europe the proportion was roughly 11.7%—but in Japan it totaled just 1.4%.

When we take a closer look at the alternative asset mixes of corporate pension plans based in each of these locations by alternative investment category, we find that most Western alternative investments to date have been made in real estate and private equity, whereas the Japanese community so far has favored hedge funds in relative terms.



Finally, I will touch on the future of corporate pension fund participation in alternative investments: Based on the *kosei nenkin kikin rengokai* data previously presented, it appears that Japanese corporate pension funds not only plan to increase their alternative investments in general, but, at least for many among them, to continue to focus on opportunities in hedge funds in particular. Based on the data presented in this slide, it appears that Western investors also plan to continue growing their alternative investments in general and, with the exception of the UK, Western corporate pension fund managers are also focusing their interest on increased allocations to hedge funds.

Summary

In concluding, allow me to make three simple summary points. First, U.S. corporate pension plans' participation

in alternatives is significant and growing with a current bias for real estate and private equity, but an increasing interest in hedge funds. Second, the U.S. and Japanese corporate pension plans share a number of common views and experiences, but also exhibit a significant number of differences, including the greater overall level of U.S. participation in alternatives, the different kinds of

financial intermediaries engaged in the investment process, and the contrasting positions of the U.S. and Japanese plans within the broader tax-exempt context of each respective country. Third, the current growth of corporate pension plan investments in alternative assets is not limited to the United States and Japan, but is rather part of a far broader, international phenomenon.

PART II: CURRENT ALTERNATIVE INVESTMENT STRATEGIES IN JAPAN AND THE U.S. BY ASSET CLASS

Panel 1: Private Equity



MODERATOR:

MASAKAZU ARIKAWA

**President and Representative Director,
Sony Global Pension Management
Corporation**

Thank you very much. I am

Arikawa, Representative Director for the Sony pension fund. We will shortly be going into the panel discussions. I would first like to ask each of the panelists to speak 20 minutes and present the slides they have prepared. We have received many questions and I would like the proceedings to move forward by having you respond by summarizing these questions. I would like to allocate 35 minutes for Q&A. I would like to ask each panelist to introduce himself and please observe the 20-minute time limit.

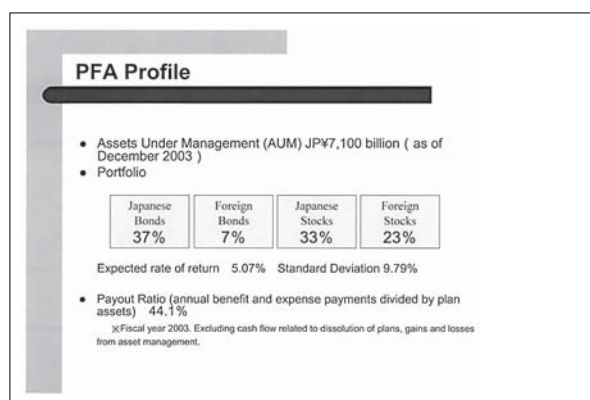


SHUZO TAKAHASHI

**Pension Investment Department,
Pension Fund Association of Japan**

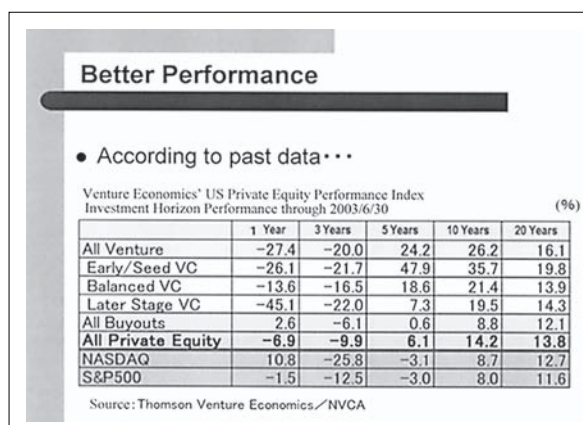
Beginning in the fall of 2002, the Japan Pension Fund Association started investing in private equity.

I would like to explain the rationale for our decision to do so. Our assets under management amount to more than seven trillion yen at the moment.



The portfolio includes both Japanese and foreign bonds and Japanese and foreign equities, but as the assets under management grew, we began exploring options outside these four asset classes and the potential for new investment strategies into alternative investments. It took us about two and a half years to make the final decision to go for private equities.

Why should we invest in private equity? It is important to have a clear objective when investing in these alternative asset classes. We have two major objectives. The first is to pursue a relatively higher rate of return and better performance. The second is to diversify our portfolio. The key phrase for both objectives is "long term." Looking at the commonly used historical net return averages for private equity provided by Thompson Venture Economics, one can see, looking at data going back one and three years from June 2003, the returns are negative. However, as you look at a longer time horizon, a period of 10 years to 20 years, the average return stabilizes at about 14%. The rows at the bottom of the table show



the returns for S&P500 and NASDAQ for this period. In comparison, private equity shows a higher return, but this can also be taken as no real difference. However, in the case of private equities, it is misleading to look at the averages. What I mean by that is that there is great disparity among fund managers in terms of rate of return compared to other asset classes. This was also emphasized in an earlier conference, but due to market inefficiencies, this is an area where the manager's skill dictates all.

The year a fund is established is called the vintage year. When one ranks the performance of the top quartile, middle 50%, and lower quartile managers' returns, there are great disparities in performance between the top quartile and the bottom quartile of managers, as well as between the top and the middle quartile of managers. This asymmetric performance pattern is also evident within ventures and buyouts and is especially noticeable in venture capital. As with private equity, the

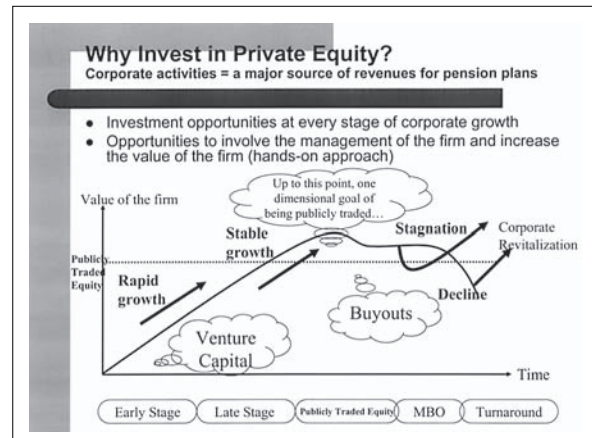
key to success lies in selecting a top-class fund manager that performs with the top 25%. Moreover, once an investment is made, it is very difficult to exit, making good manager selection even more crucial. It is also interesting to note that there is a high disparity in returns among venture capital and buyout by vintage year. This signifies the importance of diversification of the portfolio, a point that I would like to come back to later on.

The vintage years 1999 and 2000 show negative returns; as mentioned by Mr. Asaoka, they have only just begun investing. This is at the bottom of the J-curve. I won't have time to elaborate on this J-curve effect, but I would like to state that there is an expectation of higher rates of return in investing in private equity, but it takes time. That is what you have to bear in mind.

One idea was to break down the liabilities into long and short term. By breaking them up, we thought we could see high- and low-risk tolerances. Using the end of March 2002 as a base point, we carried out this analysis on private equity. Calculations showed 40% of liabilities scheduled distributions to begin in 30 years. Therefore, at least for this group, an extended period of 30 years was targeted, so liquidity in the short term was sacrificed in order to obtain the upside in the long term.

I believe the basis for decisions on investment in private equity rests on the ability to organize and manage this analysis. The other objective of investment in private equity is portfolio diversification. With regard to this objective, we classify private equity as a "stock alternative." The correlation factor between private equity and publicly traded stock differs according to the method of calculation and timeframe, but is comparatively high at 0.6. One cannot say there is no relationship between the performance of publicly traded markets and profitability of private equity funds, so there is a tendency for a high correlation factor. It is likely the IT bubble and venture capital especially accentuated this tendency. However, there is a difference in the time horizon for realizing profit, so one cannot say there is no disparity just by looking at correlation factors.

There is also the J-curve effect, so it would not be prudent to expect diversification from other assets from the start. Also, diversification has another meaning. That is, you can broaden the choices for equity investment. Revenue for pensions, whether it be equity or debt, comes mainly from the normal business activities of corporations. Considering the life cycle of companies we had only invested in, the listed stocks—the publicly traded equities—were the only side of the formula that we focused upon, since it offers liquidity and other investment-worthy characteristics, but is also mature. However, we would like to capitalize on greater growth through the birth of new companies or liens on high



growth. There may be some improvement of the management structure or revitalization that can also be considered as investment opportunities. These are the opportunities we want to target and felt we should target. This process also boils down to diversification and is a big reason why PFA decided to begin private equity investment.

There is a major difference between privately- and publicly-traded equities beyond the stage in the life cycle. That is, private equity allows a "hands-on" approach—the opportunities are available for the investor to be involved in the management of the firm. The existence of such opportunities not available in other asset classes would also be another form of portfolio diversification.

All the above should contribute to the birth and growth of new companies and enterprises, which would lead to further expansion and growth of the economy as a whole. This, in turn, would increase the return of the private equity investment, expand the investment universe, and create foundations for future revenue sources.

This is more or less a secondary effect, but investment leads to greater emphasis on corporate governance. This is an important perspective.

So far, I have touched upon the philosophy and the basic concept of PFA, and now I would like to be more specific. Concerning the investment scheme of PFA, I mentioned it is crucial to choose top-class funds. However, the question remains as to how to go about investing in such funds. Moreover, when starting out, it is important to construct the core of the portfolio to be as diversified as possible.

We have just begun with private equity investment, so the know-how of selecting the funds and the accessibility to top-class funds, which only cater to favored customers, is quite limited. In this situation, it made sense to leave it in the hands of the professionals, and we started with a fund of funds as the investment trust vehicle.

There are advantages and disadvantages of fund of funds. The know-how of fund selection, accessibility,

and the analysis capability should be ensured, and we would diversify our portfolio efficiently. In addition, through a fund of funds, the monitoring of each fund as well as governance can be left in the hands of the fund of funds manager. There is much to be gained for an investor that lacks experience in this area.

Fund of Funds		
Merits & Demerits of Using a FOF Manager		
+	•Diversification effects by investment in multiple funds	FOF can diversify by type of PE fund, region, type of business, vintage year etc. regardless of the amount invested.
	•Know-how of fund selection, access to premier funds	FOF has rich experience and connection.
	•Delegation of complicated investment management tasks	FOF handles negotiations, capital calls, distribution and so on.
	•Better governance of each fund	Example: Monitoring as a board member
	•FOF is information source of the industry; FOF is a good consultant.	Using FOF helps investors acquire know-how of PE investing.
-	•High costs (Investors must pay double fees—to a FOF manager and funds. This decreases net returns.)	
	•Limited information about each company that funds invest in	

Of course there are disadvantages, such as the fees that would have to be paid to the fund of funds manager, as well as to the fund directly, which means that the net return would deteriorate to a certain extent. However, as an investor that is only starting out, we considered this an unavoidable cost. This does not mean, however, that the advantages of fund of funds can always be enjoyed. In recent years the number of fund of funds has been on the rise, so the selection of the managers has become critical. Verification of the manager's ability to provide all these advantages has become an important part of proper due diligence.

I talked about the importance of effective diversification and creating a core portfolio. Private equity investment necessitates diversification. Vintage diversification reduces portfolio risk, and venture capital and buyouts differ in their payout, as previously mentioned. In addition, differences in geography, size, and sector allow for diversification, so it is crucial to create a bird's-eye view to manage maintenance of the fund. This will be very helpful in developing future strategies.

Usually a private equity fund only establishes a new fund once every three years. From an investor's point of view, there are new faces every year. Selecting a manager in the top quartile and maintaining the diversification criteria of the pension fund require a process. The first step is to make sure you have understood and analyzed your current portfolio. Our fund is currently managed by a fund of funds, so this process is handled by each fund of fund. Therefore, the various fund of funds combined as the PFA private equity program must be managed.

Finally, I wanted to highlight the importance of the investment plan. The important thing would be to have

the perspective of the investment program as a long-term one at the start. What I mean by this is that once profit is realized in a private equity investment, there is a distribution that signifies the end of the investment. Whether a reinvestment is made is up to the discretion of the investor. In other words, exposure cannot be constant without making a new commitment for investment. For example, say you find one or two good funds and limit your commitments to those funds. Perhaps those funds will follow the J-curve, and in the fourth year they may begin to show a positive return. Ultimately, 10 years down the road, you can look back and say the annual IRR was a certain percentage, but that is the end.

Although this is a long-term investment, from the perspective of the entire portfolio, it is just a transient event. So, without continued reinvestment, private equity investment programs would not have any meaning. Continuous investment means after a few years, the number of funds that have matured to the point of generating positive returns would increase. At this phase, cash flow would be more stable, so recovered realized profit could be reinvested. The cumulative, aggregate return of the portfolio would show a rising trend. This is the desired result and is the long-term investment that meets the need of long-term liabilities of the pension fund, which I mentioned earlier. However, reaching this state takes time, and this must be fully understood. Let's say you commit 15 billion yen every year per various simulations. Positive aggregate return would only be realized in seven or eight years. Perseverance is required in the short term.

To summarize, many features of private equity investments are dramatically different from those of traditional asset classes, and this must be fully understood at the beginning. I emphasize that short-term liquidity is sacrificed in order to aggregate profit in the long term as part of the investment process. Whether this approach matches the liabilities and investment strategies of the pension plan sponsor must be fully debated. There are certainly difficulties to endure in the short term, that is true, but if a good program is developed, pension distributions can certainly be matched in the long term. This is our mission, and we believe private equity investments will play an important role. The PFA private equity program is very new, but this is how we have implemented our program.



GREGORY T. WILLIAMSON
Director of Investments, BP America Inc.

I am the senior investment manager for BP Corporation in the United States. BP America is the combination of the former Amoco Corporation, Atlantic Richfield,

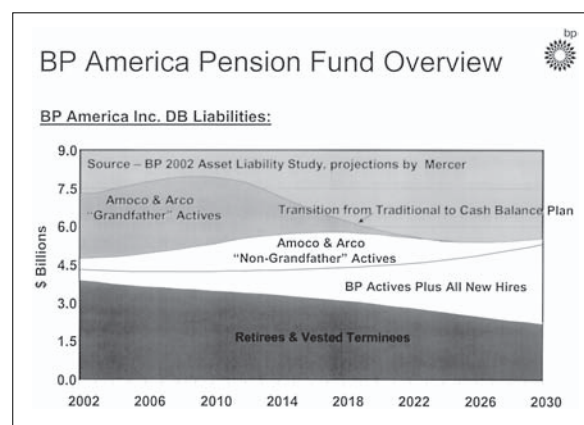
Standard Oil of Ohio, and Burma Castor Oil companies. I began my planned sponsor career with the former Amoco Corporation after spending many years as an investment banker, venture capitalist, and asset manager. BP America has been investing in private equity since the late 1970s. I have been involved in private equity with BP since the early 1990s. Today, I would like to introduce you to our private equity investment program and present several thoughts as to how other companies can also effectively invest in this rewarding, but volatile asset class. I will first present an overview of British Petroleum's global pension assets and then describe in more detail the investment program in the United States. I'll next describe our asset allocation strategy in the United States, including our policy commitment to alternative investments and private equity. Finally, and hopefully most interestingly to you, I'll describe in more detail BP's private equity investment strategy, its current holdings, and our thoughts about the keys to a successful private equity program.

First, an overview of BP's pension programs. My parent company, BP PLC, is based in London. It is one of the world's largest energy and chemical companies. Companies this large tend to have significant and complex benefit programs, as many of you know. In BP's case, the company currently has 397 different benefit trusts in 60 countries around the globe, with total assets of over US\$40 billion and that represent some 270,000 active and nonactive beneficiaries. Having said that, the two largest plans, representing more than 90% of the assets and liabilities of British Petroleum, are those in the United Kingdom and the United States. The UK and U.S. pension trusts are managed independently by separate, locally based investment teams. In the U.S., we currently oversee more than US\$17 billion of defined benefit assets in trust and defined contribution assets in trust as



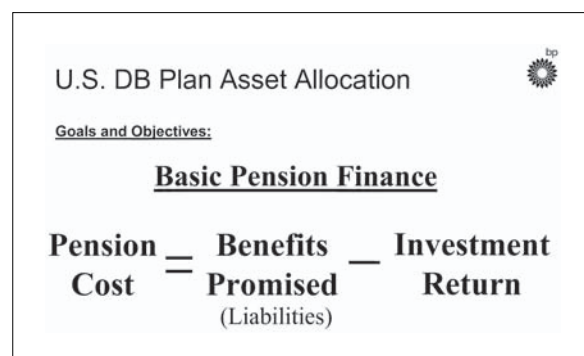
well. My team manages these defined benefit plan assets and oversees the investment issues associated with our defined contribution or 401K plan trust, which is a combination of 215 different mutual fund options available to our participants. The defined benefit plan is a combi-

nation of both traditional and cash-balance retirement plans, the cash-balance plan being established by Amoco Corporation in the mid-1990s. As a result, we have a very complex liability profile comprised of four different liability classes: those employees who have already retired and are receiving annuities; those employees who can retire under the traditional defined benefit plan structure; those employees who have worked with the company when the cash-balance plan was introduced and are eligible to take a cash-balance distribution; and then all new employees who are automatically covered under the cash-balance plan.

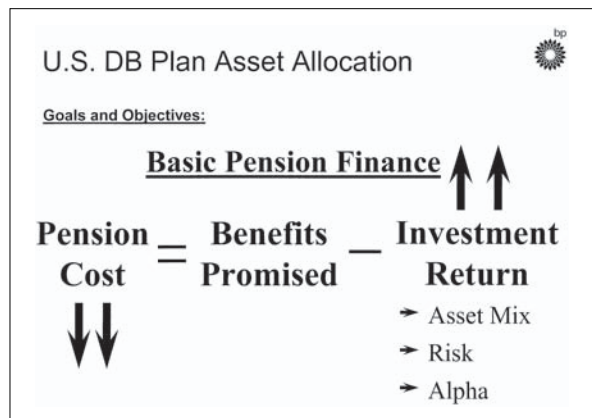


At the year end 2003, the main U.S. plan was fully funded on an ABO, a PBO, and an RPA basis.

Let me describe BP America's defined benefit plan's asset allocation strategy. At the base of our pension finance consideration, and any basic pension finance consideration, is this equation, stating that the pension cost of the company is equal to the benefits promised by the company, less the investment return generated on assets under management.



If investment return increases due to the adoption of a higher expected return asset class mix, the introduction of a higher risk asset class, or through the generation of alpha or excess return, then, other things being equal, the pension cost to the company declines and the benefit obligation is effectively met.



This equation also reflects the inputs required to determine our policy asset class allocation. After considering the rate of return required to meet beneficiary obligations, current and expected levels of company funding, and the company's total and residual risk desires, the U.S. pension plan adopted this policy asset class allocation in 2002.

U.S. DB Plan Asset Allocation

Policy Allocation:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Allocation Ranges</u>	<u>Asset Class Benchmark</u>
U.S. Equity	55%	40 - 70%	75% S&P 500, 25% S&P 400
International Equity	20%	10 - 30%	MSCI EAFE (unhedged)
U.S. Fixed Income	18%	0 - 30%	Lehman Aggregate
Private Equity	7%	3 - 10%	Equity Benchmark + 5%
Cash	0%	0 - 50%	N.A.
Real Estate	0%	0 - 10%	N.A.

With a policy of 82% equities and 18% fixed income, ours is an aggressive policy allocation compared to most other U.S. large pension plans. Our 7% allocation to private equity is not unusual for a large plan, however. When we decide on our policy asset class allocation, we assume a 15% net annualized rate of return for private equity investments with a 30% annualized volatility both looked at over the long term. We also assume a fairly low correlation to other policy asset classes under consideration. History shows us that private equity returns have been in excess of our expected return level, while volatility has been right at the 30% annualized level. Correlations have also been very low to traditional asset class investments, with the highest correlation of .7 being to a combination of 75% small-cap stocks and 25% high-yield bonds. Intuitively, this makes sense when you consider that private equity is just a compilation of small-cap stocks and high-yield investments or bond exposures.

With this information as background, let me describe the specifics of BP America's private equity investment program and what we believe are the attrib-

utes of a successful private equity effort. As I mentioned, the former Amoco Corporation began investing in private equity in the late 1970s, making its first venture capital partnership investment in 1978. That initial investment was made as a substitute for traditional small-cap stocks, which were a part of our policy asset class exposure at that time. Private equity became a formal part of our policy asset class allocation in 1983 at the 3% target level. The policy allocation to private equity increased to 5% in 1987 and 7% in 1997, which is where we currently stand.

In 1993, I created the private equity approach still in use at BP America. As a part of this effort, we stated specific objectives that we have for the private equity investment. These are a minimum net annualized return of 15–20% over the long term, with returns that are uncorrelated to other asset class investments in the portfolio. By meeting both these requirements, we believe that we can improve the risk-return profile of the aggregate portfolio, which is our primary consideration. We also, however, seek to use our private equity relationships to provide information about products and technologies that may impact liquid companies and industries in which we also invest. We also use this information to provide early indications on the state of the financial activities that could affect the overall market and thus our overall portfolio's performance.

Now, our private equity portfolio looks like this:

U.S. DB Private Equity Program

Current Private Equity Program:

<u>Investment Type</u>	<u>Market Value</u>	<u>Outstanding Commitments</u>	<u># of General Partners</u>	<u># of Limited Partnerships</u>
Venture Capital	\$102m	\$ 86m	16	45
Buyout Funds	\$209m	\$130m	27	45
Opportunistic	\$ 38m	\$ 1m	5	5
Real Estate	\$ 40m	\$ 2m	11	15
Direct Investments*	\$ 12m	\$ 0m	NA	NA
Total:	\$401m	\$ 219m	59	110

* Eight (8) Investments Held Directly, Not in Partnership Form

we are currently invested with 59 general partners in 110 limited partnerships and have approximately 50% of our investments in buyout funds, as measured by market value, and 25% in venture capital partnerships. The rest of our investments are opportunistic investments in such categories as hedge funds, mezzanine debt funds, and select direct investments. Although I have real estate listed as an alternative investment, this is really just a residual holding that occurred during the mergers of the many different plans that make up BP America and is currently being phased out of our portfolio. We have no policy asset class allocation to real estate.

Let me declare that our current portfolio structure is not our preferred structure, by any means, but instead is a result of the aggregation of the many company plans that BP acquired. Our original and desired portfolio would comprise 60–70% buyout funds and 30–40% venture capital funds. We would ideally have relationships with 15 to 20 top general partners, investing in 30 to 40 of their limited partnerships. As many of the partnerships were acquired during mergers, we will move back to that desired portfolio structure as those partnerships tend to wind down.

Some of the primary general partner relationships that we've established over the years are listed here.

U.S. DB Private Equity Program	
<u>Sample Private Equity Program Relationships:</u>	
<u>Venture Capital</u>	<u>Buyout Funds</u>
Sequoia	Blackstone
Brentwood Associates	Carlyle Partners
Charles River	Castle Harlan
Sprout Capital	DLJ Merchant Banking
Oak Ventures	Doughty Hanson & Co.
Primus Capital	Madison Dearborn Capital
VantagePoint Venture	VS&A Communications
Woodside Fund	Warburg Pincus

In most cases, due to our long-term relationship with the general partner, we are members of their limited partnership advisory boards, and we were also fortunate to have been early investors with some of these funds. Due to the increase in investor interest in private equity over the years, several of these and other top funds currently do not accept new investors. BP gains exposure to private equity partnerships as a direct investor in specific limited partnerships, but there are three main ways that one can gain private equity exposure.

U.S. DB Private Equity Program	
<u>Gaining Private Equity Exposure:</u>	
<ul style="list-style-type: none"> • Invest Directly as a Limited Partner • Invest in a Private Equity Fund of Funds <ul style="list-style-type: none"> – Index Fund of Funds – Active Fund of Funds (Primary or Secondary Funds) • Enter a Private Equity Swap or Trust 	

Our sister fund, the BP-UK Fund, recently established its first private equity invest program and is pursuing a fund of funds investment approach in addition to direct partnership investments. Fund of funds have the advantage of providing quick means of investing in a diversified pool of investments, some of which are not open to

new investors, and provide administration and distribution management capabilities. Fund of funds are expensive, however, typically charging a fixed fee of 1% of committed capital each year, plus 5–10% of the profits generated. These fees, of course, are in addition to the 2% fixed fee and 20% of the profits charged by the underlying general partners.

Another interesting way to gain exposure to private equity investments is through investment in private equities via a swap or a trust relationship. The difficulty in this approach is that finding a counterparty willing to swap away private equity returns to you in strong market environments is typically very difficult. When we began investing in private equity, the only vehicle available to us at that time was direct investment in partnerships. Our goal, and the goal of any private equity program, should be to build a diversified pool of investments across industries, geographies, investment size, yield, stage, and exit strategy. To be successful, BP has found that taking an active role in the oversight of investment partnerships maximizes information flow and minimizes administrative and operational problems and burdens. Additionally, BP has found that being opportunistic, taking advantage of desirable investment opportunities when they exist, is an important factor for success.

The most important factor in meeting our risk-return objectives and that of any private investment program is, of course, selecting top managers. As this Venture Economics survey shows, with data through the year 2002, the difference between the median and top quartile manager in management returns is significant—over 20% annualized—and that means the difference between meeting your return objectives and failing miserably.

U.S. DB Private Equity Program

The Importance of Top General Partners*:

<u>Investment Type</u>	<u>Median IRR</u>	<u>Top Quartile IRR</u>
Venture Capital	3.0%	31.8%
Buyout Funds	5.0%	22.7%

* Source: Venture Economics, evaluation period 1990 - 2002

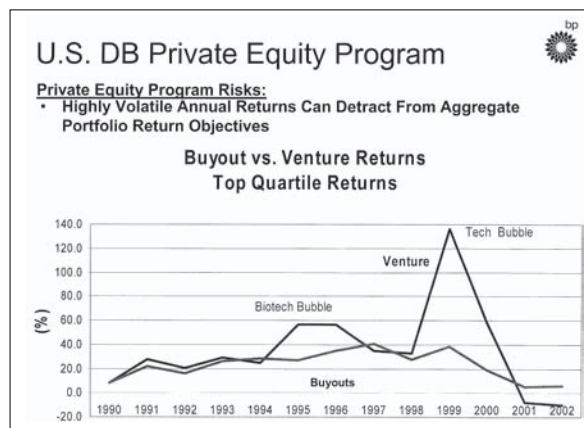
The main question is: how do you pick top quartile managers? We have found success depends on six factors. First, the partnership must have a clear, focused investment strategy that it adheres to in both favorable and unfavorable market conditions. Second, the quality and the experience of the partners themselves, the actual people who run the investments in the businesses

and industries in which they invest, are critical to success. Third, a strong, proprietary source of deals, in our experience, tends to lead to higher returns. When partnerships rely on auctions, purchases from other private equity companies and accounting and law firms for their deal flow, they tend to produce median returns at best. Fourth, a partnership must have a clear exit strategy in place for all of its deals at the time that the deal is done and a backup exit strategy as well at that time. Poorly performing funds tend to concentrate on getting a deal, not on exiting successfully and in a timely fashion. Fifth, the exit value received by the general and limited partners should be the same. In the case of many venture capital distributions of stock, the general partner is credited and is paid on the value of the stock on the day of distribution to investors. When investors sell the stock, however, in many cases, the value that they receive is much less than the price set by the general partner. A gap of 10%, 20%, or more is not uncommon. Sixth, the terms of the partnership must align the general and limited partners' interests. Claw-back clauses with regard to fees, limits to partnership commitment terms, and the existence of limited partnership advisory boards all serve to better align these interests. Now, if you are going to use a fund of funds manager for your investment program, make sure that your fund of funds manager addresses these six critical issues, as well.

A final key issue to success lies not with the general partner capabilities and their selection, but with the investor's choice of the partnership and its expected investment portfolio. You, as an investor, need to create a diversified portfolio in order to improve your aggregate fund risk and return profile. Now, as important for an investor as partnership selection is his own partnership administration and oversight. A diversified private equity program like BP's generates over 300 capital calls and cash or securities distributions each year, and it generated twice that amount per year during the bull markets of the late 1990s. Use of specialty software to help track and administer private equity programs is helpful, or the investor can simply outsource partnership administration and distribution management to one of the many firms that specialize in this service.

We have found that private equity investing is not without risks. One of the biggest risks is that the highly volatile private equity returns can significantly impact the aggregate fund's funded portfolio status. Venture capital returns can be extremely volatile, particularly compared with other sources of private equity exposure. In the mid- and late 1990s, strong venture capital returns added significant value to pension funds' general investment programs. Unfortunately, due to the illiquid nature of this investment, these gains could not be realized. The reverse came to pass early in this decade as both

venture and buyout fund performance fell dramatically and significantly contributed to pension plan underperformance and underfunded problems.



Investors must consider their ability to weather venture capital volatility when constructing a private equity portfolio. Some investors have decided that venture capital is too volatile and are redirecting investments away from this area and to the favor of mezzanine and other equity-like private equity investments. Additional risks, as previously discussed, include benchmark risk, unavailability of investment opportunities when desired, and burdensome administrative requirements.

I feel, however, as do many other institutional investors in the U.S. and internationally, that the benefits of private equity investing outweigh the risks. Private equity programs can be financially rewarding over the long term, lowering pension costs to the sponsoring company, and can provide key economic and business condition information that can benefit other parts of your aggregate portfolio.

Discussion

ARIKAWA

Mr. Williamson, I believe your group expended something like five years before you were able to grow private equity as an asset class. Why did this take so much time? What is the thinking behind this approach?

WILLIAMSON

Initially, we took our time growing the private equity asset class because we did not have the internal personnel strengths and knowledge to feel that we could effectively manage private equities on our own. Also, being early investors in the private equity arena, there simply weren't that many opportunities that we could take advantage of at the time. When the first big buyout funds were introduced in the United States, such as the Forstman-Leff Fund in the early and mid-1980s, we were their first and largest institutional investor. So, really, we waited

for the market to catch up with our interest in being private equity investors. It has taken a great deal of time for our sister company, BP-UK, to be able to introduce its private equity program to the level that it would desire, simply because it takes time to find the right partnerships and the right fund of funds managers that are going to provide both the exposures that you require for your aggregate portfolio concerns and diversification that you require and the expected rate of returns that you seek. As they build their program and their knowledge, through the use of fund of funds, I would expect that they would bring more of those capabilities in-house, relying in the long term less on fund of funds managers and more on their internal staff to carry out the program.

ARIKAWA

BP has a unique way of assigning responsibilities. Could you describe the plan's sponsor vs. manager division of responsibilities at BP?

WILLIAMSON

We have grown the asset class and from an asset allocation perspective, if we were to use an optimizer to determine our policy asset class allocation, given the attractive expected returns for private equity, the optimizer will always put 100% of the assets in the private equity arena. If you are a private equity manager, this is a good thing, but if you are a pension plan, the optimizer, of course, is not taking risks of private equity and potential downside risk exposure into consideration. So, we have limited our private equity exposure to a level that we feel comfortable with in terms of the potential downside risk that a bad year in venture capital or private equity could have and would thus impact our aggregate portfolio.

In the management of alternative investments at BP, we have constructed a team of individuals to oversee these investments. At BP, I have a 15-person staff to oversee all of our liquid market and private investments. Of those 15 people, I have people who are assigned to specific manager responsibilities and who also spend part of their time looking after part of the private equity marketplace. With 110 limited partnerships, no one or two people could adequately look after that amount of investments, so I have a five-person team who spend 20% of their time helping to look after our current partnerships, looking after the administration of those partnerships, and helping to review new prospective managers that could eventually become part of our private equity portfolio. It takes a while for those people to become trained in private equity analysis, administration, and communication, but by having a team of people where knowledge can be shared between the senior team members and the junior team members, we are

able to bring our staff up to speed regarding private equity investment quickly and efficiently and continue training other personnel to help effectively manage the asset class going forward.

ARIKAWA

Mr. Takahashi, you started with private equity investment through fund of funds, and you are now in the process of creating a vintage investment. In the short run, as asset class PE, this is more of an equity or quasi-equity stance, but you are planning a shift, am I right?

TAKAHASHI

Your question concerns how we position private equity in our asset allocation policy. Currently, this is outside our policy; we have only just begun. In money terms, the initial commitment was 15 billion yen. We added 10 billion to that, so we have something like 25 billion yen committed, but this is still very small compared to the total fund size. We found it very difficult to determine a fixed allocation using a program such as an optimizer, because diversification by vintage year and continuous investment are so very important. We didn't want to commit a large amount into one allocation from the very beginning. We thought that would not be the best approach in making the private equity program effective.

In addition, there is a time lag between the commitment and the actual investment. The entire committed amount is not invested right away; it takes a long time to build up a certain amount of investment. Furthermore, it takes more time before we realize profit, so it is very hard to decide up front what the percentage target should be. We use optimizers as to confirm a minimum for entering into the private equity investment. However, the important thing is to look at the characteristics of the liabilities. How much can we invest without generating concern for immediate liquidity? That is what the approach will become, I think.

ARIKAWA

There is a time lag between commitment and actual funding. The entire committed amount is not invested right away; it will take time before a certain amount is invested, and it's going to take still further time before we start to realize returns. Thus, it is very hard to decide up front what the target should be. If we use optimizers, we can at least confirm that there is a meaning going into PE investment, but we have to think about that. How much can we introduce without worrying about immediate cash flow in hand. From that point of view, based upon Gregory-san's experience, PE as an asset class compared to other asset classes has a low correlation. You mentioned that it could be identified as a separate and independent asset class. I'm sure, however,

that you had to put in much effort in lowering that correlation. You probably needed to diversify within private equity investment as well, part of which you have mentioned. Can you describe in greater detail how you lowered correlations of PE against other asset classes?

WILLIAMSON

Actually, we didn't have to do that much work to construct a lower correlation portfolio. The correlations have been what they are. Over any short-term period to mid-term period, correlations can be spurious. You can have a very high correlation or a very low correlation, depending on the period. Over the longer term, however, the fact that a well-diversified private equity portfolio will at various points in time have commitments to very early seed-stage funds and first-, second-, and third-stage funds and that your buyout program will be invested in small, medium, and large buyout funds creates an exposure that over the long term does not correlate very well to any one single asset class. As I said, the highest correlation that we found is probably to very small cap stocks, which you would expect. Venture capital is a very early small cap stock, and a buyout fund is, for the most part, a collection of private companies about to go public, so it reflects stock-like characteristics. A well-diversified program does not correspond well to either large-cap stocks or mid-cap stocks or international stocks or fixed-income portfolio. The diversification of the different types of private equity and the size and structure of the deals themselves are diversifiers.

ARIKAWA

Mr. Takahashi, at the PFA you have the PE outside of the policy asset mix and you are trying to grow that, but Gregory-san's group clearly has introduced this as part of the policy asset mix. You started at 3% and now it's 7%, so you have clear numerical criteria. What is the logic? How did you arrive at this 7% number?

WILLIAMSON

The 7% number, for us, quite frankly is a low number. We have ranges. We have a target of 7%, but we always want to be between 5% and 12% private equity. As I said, when you put the risk and return in correlation characteristics of private equity into a mean variance optimizer, the optimizer wants to put at least 50% of the assets into private equity and in many cases much more. What we did was look at the downside risk of private equity portfolios and buyout funds and ask, over in a bad year, two years, or three-year type environment, how would negative performance in those areas potentially impact my aggregate plan's funded status? The biggest risk that my aggregate fund faces is a degradation of its funded status, the need to make additional

contributions into the plan, and the need to file special reports with the U.S. government. My company simply doesn't want to have to fund its plans, and based upon downside risk analysis, we decided that 7% was the right level for us. This level could have been anywhere between 5% and 20% and we wouldn't have had an issue with it. The ultimate decision came down to the fact that my investment committee, the senior members of BP America who are the appointed fiduciaries of the plan, themselves felt comfortable at the 7% level. and that is why that number was chosen.

ARIKAWA

That is a very interesting approach. You have focused on the characteristics of PE. Downside risk was more or less simulated, and BP felt comfortable at 7%, and that is how it was decided. Am I right? Also, I understand you are using an equity benchmark of +5%. This was a very new approach, and those of us who are not knowledgeable find that very interesting. Can you elaborate on this point?

WILLIAMSON

There are two issues around benchmarking any type of investment. One is that the benchmark tries to tell you how well your portfolio is doing versus other types of investments like the one you are invested in: in this case, how well your private equity portfolio is doing versus other private equity portfolios. The second reason for having a benchmark is that it reflects the opportunity cost of not investing in something else: if I weren't investing in private equity, I would be investing in public equity. So, on an opportunity basis, my benchmark for private equity is whatever my returns would have been in the public equity markets. Of course, private equity has certain differing characteristics from public equity, the biggest being that it is illiquid and has a long-term holding period. Given these characteristics, we imposed a 500-basis-point "penalty" on the performance of the private equity portfolio relative to the public equity portfolio. This benchmark was just adopted last year. Prior to that, we've had four different benchmarks: there simply is no one good benchmark for this asset class. Our previous benchmarks were an absolute 18% return, which in any one year is highly volatile versus your actual returns. Another benchmark that we had was the 75% small-cap stock, 25% high-yield bond benchmark to which there is a high correlation over the long term, but unfortunately over the short term there is really no correlation at all. The last benchmark that we used was the Venture Economics index of private equity managers' returns whose fund was issued in the same year as yours, which is an interesting benchmark. It has a number of biases associated with it, and it also has the

problem of being reported approximately six months after the end of the period, so it is not a very timely benchmark. There are a number of different benchmarks that we have utilized, and when we spoke with a lot of the larger institutional investors in the U.S., there seemed to be a trend toward using this opportunity cost-based benchmark, that is being their equity portfolio exposure plus a liquidity premium.

ARIKAWA

Mr. Takahashi, you started from private equity investment through fund of funds. To be successful, you have to identify those gatekeepers and fund of funds in the top quartile to be successful. For pension funds newly approaching this asset class, what kind of procedure is necessary to make sure that you find that top quartile?

TAKAHASHI

This is the very reason we used fund of funds and gatekeepers. It is not, however, that we can use just any fund of funds. We have to know whether they really have accessibility, whether they perform their analysis properly. Our task is to confirm that.

Criteria for manager selection are numerous (many were mentioned by Mr. Williamson), but compared to traditional assets, private equity depends much more on the evaluation of the people themselves. They, of course, must have skill and extensive experience. More important, since this is going to be a long-term investment, we need to be able to trust that individual as a person. The most important thing is to meet frequently with your candidate manager and try to know the group well.

Investing in a top fund is important because we have seen major performance differences. However, historical performance is not the only criterion. It is important to understand how the performance was achieved. Strong performance must be due to good results, but it is very important to know who among the manager's staff was actually involved, hands-on, in the projects. Maybe that individual is no longer with the manager organization. If that's the case, then historical results are no longer meaningful.

ARIKAWA

Mr. Williamson, when direct investment is to be made in private equities, what would be the major factors in success?

WILLIAMSON

We do some direct investments, not through partnerships, but either directly, independent of the partnership, or perhaps on a side-by-side basis with a general partner. Due to the active role that we play and the knowledge that we have of the partnership's underlying portfolio,

we sometimes see investment opportunities in particular companies that we like that allow us to put additional funds directly into an investment candidate. We look at those types of investments in much the same way the actual general partner would or a buyout fund manager would. We look at the economics of the situation, the potential timing of the deal flow, the exit strategy, the risks associated with the deal, the amount of capital that would be required. Typically, when we make a direct investment, we restrict it to a very small part of the portfolio. When we make a direct investment, it is no more than US\$5 million and typically more on the one-million-dollar level. So, even if the investment does go bad, and we have had more than a few in the portfolio that have, the economic impact on the aggregate fund is not significant. When you have one that goes very well, it tends to make up for all of those that have gone bad in the past.

ARIKAWA

Mr. Takahashi, in your experience, are there things we need to avoid when we get started with fund of funds?

TAKAHASHI

Our experience is limited, so we have not experienced this situation, but it is important not to be lazy when checking fund managers. What we were particularly careful about was to avoid conflicts of interest. Investors such as pension funds must pay special attention to this. For example, the fee structure or disbursement of realized profit must contribute to aligning the interests of the general partners and ourselves. Otherwise, it will be very difficult to have a successful relationship over the long term.

Another consideration is that the biggest source of return of private equity lies in the hands-on approach. Whether the manager executes this properly is something that you have to be careful about. You cannot know this directly; reference checks are required. Speaking with other institutional investors is an important process, and this is the area we are emphasizing the most going forward.

ARIKAWA

Mr. Williamson, the good funds have a limited capacity to accept funds from the investor, so if you are to find a very good PE manager, what points do you take into account?

WILLIAMSON

You are absolutely right; the good private equity managers are well known and have many more times the investors that want to invest with them than they need to actually complete their fund. The keys, then, if you aren't already an investor with one of the well-known funds is, one, to be an extremely large investor and be

willing to commit a substantial amount of money to a particular fund, and two, to be an active investor and be willing to provide additional capital to specific deals when required. If you can do that, you might have a chance of investing with some of these top-tier investors who aren't currently taking new investors into their portfolios.

Another way to get in with some of the top investors who might not otherwise take a direct investor into their portfolio is to use a fund of funds that has a relationship with that fund and then, once you are an investor through a fund of funds, approach the general partner and let them know that you would like to be a direct investor in the future. The key question is, if you are not a large investor and you cannot get access to the current top funds, how do you identify the up and coming managers, those that are good, top-quartile managers and still have capacity and are willing to take a new institutional investor on board as a client? We have found the most successful way to do this is to network with the known top-quartile investors. General partners know who the other good general partners are because they all invest together in private equity deals, particularly on the venture capital side of the business. A venture capital general partner does not typically fund an entire deal himself. He brings in other partners to diversify his risk and he is only going to bring in top-quartile-type partners himself. So, a good general partner will tell you who he thinks the other top-quartile investment managers are and that's a good way to start to find those managers who might have capacity and with whom you can invest. It's much easier to do that than to go out and get the venture capital directory, which has hundreds of names in it, and start cold-calling managers.

ARIKAWA

Mr. Williamson, you said that ultra-long-term commitment into PE investment would be critical in order to grow the PE asset class into a stable, resource-generating asset class. What was your experience in 1999? You had a 140% return and then the return plummeted dramatically. What was the situation?

WILLIAMSON

In 1999, my hair was completely black. It turned gray by the end of that year. Both 1999 and 1998 were tremendous years. We invested in venture capital funds in 1998 that made all of their investments, drew down all of our committed capital, and returned 10 times our money by the end of 1999. We had 600–700 administrative responsibilities in terms of capital calls and distributions during that period. The distributions that we got from the venture capitalists, after we received them, increased five and tenfold in value, so it was a tremendous period. The difficulty we had at that time was that the liquid markets were performing very well in addition to private equity, and private equity was being returned to us: we could not put enough money into private equity to get to our target allocation at that time. Of course, the opposite became the case very quickly in 2002 when public market returns fell dramatically and private equity, because it is private, did not decline in value as much as the public markets due to the fact that these investments were priced at cost, and we became overweight in private equity relative to the liquid portfolio. It still wasn't performing well, but we couldn't reduce our exposure at all due to the illiquidity of the asset class, so the last five years has shown us the tremendous highs and the tremendous lows that investors can see in private equity. If you can live through those periods, I think you can live through anything with regard to this asset class.

I have to say that, over the long term, since inception, we're still annualizing over 20% net returns, even given the difficult market environment that occurred over the last four years—last year's returns were flat at best. I will say that 2004 is already looking to be a very positive year for private equity. Market activity has increased dramatically during the first month of this year. We have already seen five major distributions from our venture capital and buyout funds this year and, given the lag effect between private equity and the general economy of about 6 and 18 months, I think now is a good time to put some money to work in private equity if you have the chance.

Panel 2: Hedge Funds

MODERATOR: MARK MASON

The hedge fund industry has grown significantly in recent years. First developed in 1949 by Alfred Winslow Jones, hedge funds today exceed 6,000 in number with estimated assets under management of more than US\$600 billion. Although the field has grown rapidly, we know that there are clearly risks as well as potential rewards in hedge fund investing, so we must analyze this subject extremely carefully. Given the growing interest in hedge funds, both in the West and now, apparently, in Japan, we are fortunate to have two excellent speakers to help us analyze this very important topic: Mr. Yoshihide Furuya, representing the Japan Computer Information Service Employees' Pension Fund, and Dr. Francesco Mainolfi from the World Bank Pension Fund.



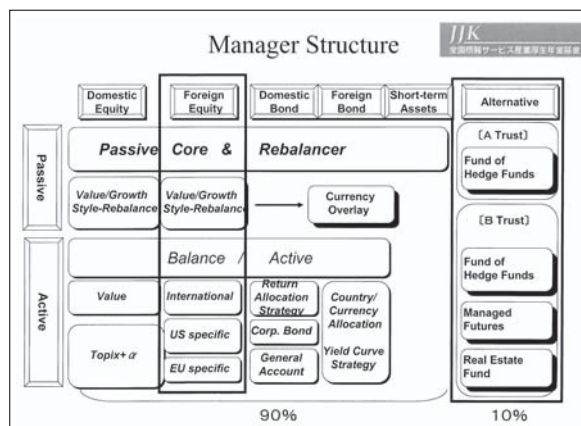
YOSHIHIDE FURUYA
Japan Computer Information Service
Employees' Pension Fund

Our fund was established as a fund for the information and technology industry in February 1982. We have 1,200 companies and 132,000 partic-

ipants. The ratio between pensioners and active members, in terms of maturity, is 4.1%, and even if you include deferred pensioners, the ratio is still at 12.8%. Right now, the ratio calculated based on the assets vs. liabilities is 80.8% at present, so we are underfunded. In terms of the monetary value-based maturity, the ratio of the annual benefits paid divided by annual contributions is 24.5%.

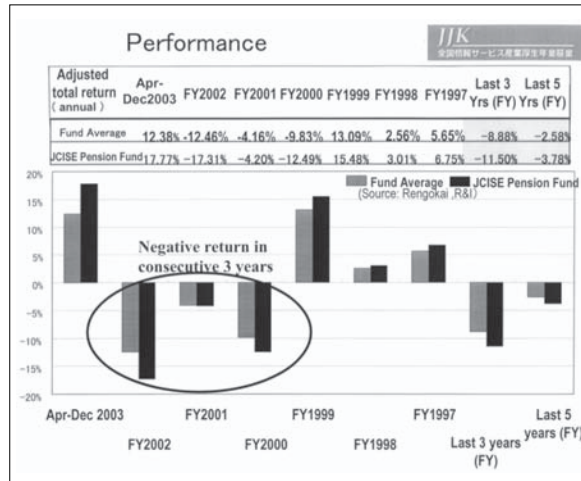
You can see that the average age of our members is quite young, and so our maturity is quite low still. Therefore, the asset mix that can be derived from AUM has characteristics of higher risk tolerance. We can and do have greater weight in risky assets. With regard to the long-term asset mix, the expected return of 6.75% and the risk of 10.91% are assumptions. We started at 10% of allocation in alternatives and practical asset mix, and we have 5.55% in expected returns and 10% allocated for risk over the next five years.

As for our manager structure, 90% of assets follow our policy asset mix; therefore, we have a passive core and active satellite as the main elements of our structure. In the passive core, we automatically rebalance to policy asset mix, based on the inflow of our monthly contributions. The style of our funds includes both domestic and foreign equities, and we do rebalance to meet the active mix policy. Active management is done by specialty managers, and currently we have more than one benchmark in order to have diversification across styles. We also reevaluate managers.



Again, 10% of our assets are in alternative assets. We currently use two trust banks, and 2.5% each is given to each of four alternative investments. We have a low-risk, low-return fund of hedge funds; a middle-risk, middle-return fund of hedge funds; high-risk, high-return managed futures; and a real estate fund, going after income again in the main.

As our policy is to stick quite closely to our policy asset mix, for the last three years we underperformed and had considerable negative returns.



However, because of the automatic rebalancing strategy, so far, year-to-date, we have been able to recoup the lost ground. The three-year, continuous, negative return is really due to weakness in domestic stocks. We found that a portfolio composed only of equity and fixed income was not really giving us enough diversification.

We started our study of alternatives back in September 2000. We tried very hard to meet in person with the managers to listen to their stories and strategies and learn about the management process, so that we could capture investment ideas that could be included in our

own portfolio. In July 2002, we formulated an alternative investment program that included real estate, private equity, and other alternatives. We looked at what would be the desirable weight of this class. The investment committee approved the program and we started implementation, based upon the formulated program.

In October 2002, as a substitute for yen bond, for the first time, we invested in a fund of hedge funds for low risk and low return. In February 2003, we started investing in real estate funds with the main goal of income gains through diversified investments in real estate funds, large offices, and housing. In March 2003, we started managed futures with high risk, high return. Finally, in April, we newly adopted a fund of hedge funds with mid-level risk and mid-level returns. Most recently, we decided to include a currency overlay strategy.

We had three objectives for our alternative investments. First, we wanted them to fulfill a complementary function in the case of a crisis in traditional assets. Second, we wanted to reduce risk via the low correlation with traditional assets. Finally, we wanted to pursue absolute returns. In other words, by expanding investment vehicles, we hoped to achieve diversification and risk reduction, while seeking the alphas that could be obtained by skillful managers. Essentially, our main objective is to limit the downside risk of our portfolio.

In including alternative assets into our funds portfolio, we began by looking at the risk-return characteristics and correlations with traditional assets, examining several alternative strategies. Then, we moved on to ascertain the desirable weight, but always kept in mind that we had to maintain our asset policy mix as a basis. The basis of the review was an expected return of 5.07%, a standard deviation of 11.09%, and a 95%VaR (Value at Risk) of 13.2%.

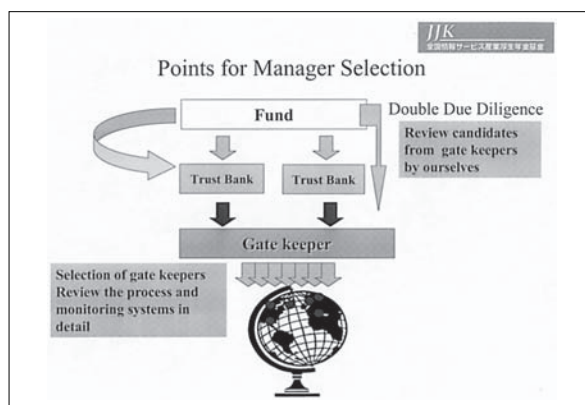
We began by automatically simulating the results, first, if we had included alternative assets at 5%, 10%, and 15% across the portfolio, and then, we simulated substituting them for 5%, 10%, and 15% of domestic equity, which was not doing very well. We found that in each of the two simulated cases, we would have improvement. If you substitute “some kind of alternative” for specific assets, however, this means giving up the upside potential of the equity. Thus, we decided that we would be taking the position of maintaining a policy asset mix and having, on top of that, alternatives.

As for weighting, in deciding whether to allocate 5%, 10%, or 15%, we employed a method based on risk budgeting. However, 5% does not really give us much of a benefit in using the new technology, and 15%, compared with our peer group, would be excessive. Thus, we judged that 10% would be more or less the desirable and appropriate weight for us.

We moved on to manager selection. We felt that our fund was not really prepared to do the due diligence.

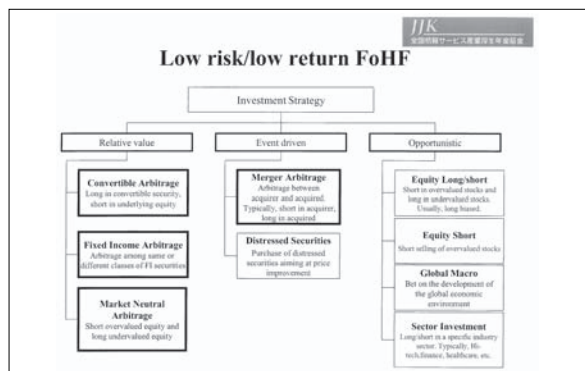
You may think that is naïve, but we felt that it was very difficult for us to identify good hedge funds. Particularly because we resided in Japan, we felt it would be very difficult to find overseas hedge funds. It is not easy to understand these very thick due diligence documents in English, to understand what the audit reports are really saying, and to decide how best to change strategy allocation. As we believe that the purpose of introducing alternatives is to have diversity among and along strategies, we decided to outsource this task.

We felt that we should invest through managers whom trust banks had chosen among several gatekeepers that had the same perspectives our fund had as an investor. We thought that such gatekeepers should be in Japan and have local offices so that we could access them directly, at any time. Whether they were quantitative or qualitative in strategy, we wanted to limit ourselves to the kinds of schemes that trust banks could fire without a problem. Also, we established a condition that gatekeepers themselves must be investing their own money alongside ours. How do we access quality gatekeepers?

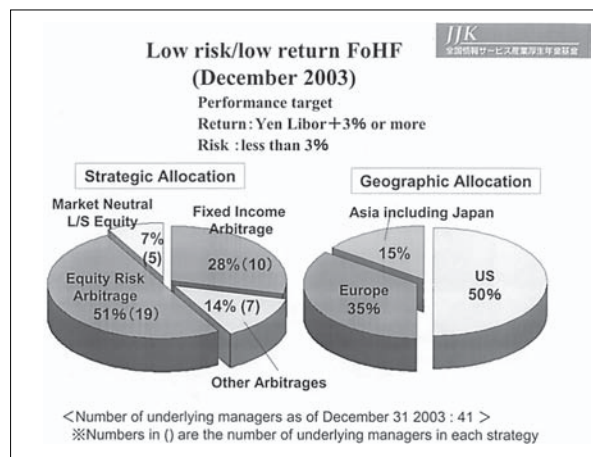


We met and talked with many managers and established our own channels to identify good gatekeepers. At the same time, we have used the channels of trust banks, which have done considerable due diligence and have established partnerships with overseas gatekeepers. This ensures that we are doing double due diligence.

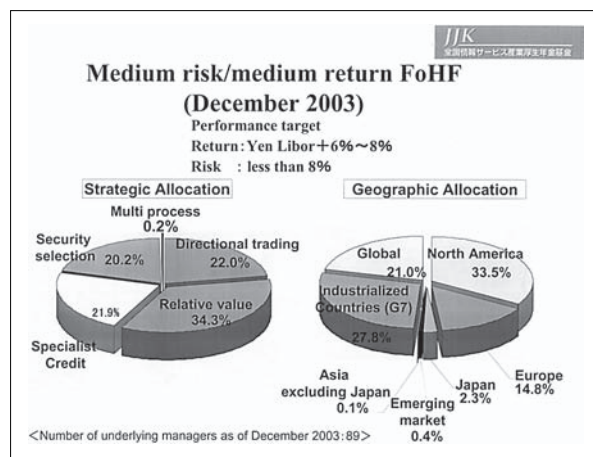
Let me introduce you to the fund of hedge funds in which we are investing.



The first is a low-risk, low-return fund of hedge funds. This particular gatekeeper has three hedge fund strategies, and its strength is in the relatively low-risk region. The operation target is a return of yen Libor plus 3% or so with a risk of 3% or less. As you can see, what we expect is really low, rather than not being very high. This is a European manager, and the fund is a global type with less exposure to North America. It is very well diversified, with 41 funds included. This particular manager recently ranked number 20 among the top 50 funds of hedge funds by *Institutional Investor* magazine.



The next fund of hedge funds is a mid-risk, mid-return fund. This particular gatekeeper invests in 15 strategies, which it classifies into four categories. The target is yen Libor plus 6–8% with a risk of less than 8%, which is a little higher than the previous fund of hedge funds, but currently, we are controlling risk at or below 5%. This fund is quite new in that it includes about a 20% exposure to directional trading, which is unusual among fund of hedge funds. They have 82 funds incorporated, which is very large, and this particular manager is ranked 10th among the top 50.



The last fund of hedge funds includes high-risk, high-return managed futures. It is quite unusual for a pension

fund to invest in this. This fund of hedge funds has a single-manager structure, the CTA (Commodity Trading Advisor), and we could call them a futures trader. They invest in more than 100 products and commodities in the futures market all over the world. The operation employs a totally computerized, systematic management with no room for human judgment. You may wonder why we have adopted this high-volatility strategy into our portfolio. The reason is that this particular strategy has a very strong negative correlation with equity. As our portfolio has a high exposure to equity, we felt that this instrument would give us diversification. This style is also called a trend follower: if equities and bonds increase in value, they long those positions, and if they go down, they short. According to this strategy, they can really make a profit in both directions. Risk control is very strict, and the downside deviation is lower than the downside deviation of equity positions.

As for monitoring after introduction, we will continue to see if the return is as stable as before introduction, if the probability of positive return is as promised, if the downside risk is well managed and controlled, if they are taking an attendant risk control to avoid unexpected risk, if low correlations with traditional asset classes are maintained, and finally, if they do contribute to the performance of the overall fund. In conclusion, I'd like to say that we have mixed together strategies with different risk characteristics and different correlations and we have risk budgeting to place more money into lower risk strategies, so that, for the alternative asset portfolio as a whole, as well as for the portfolio as a whole, we are able to create a very diversified portfolio with a stable profit.



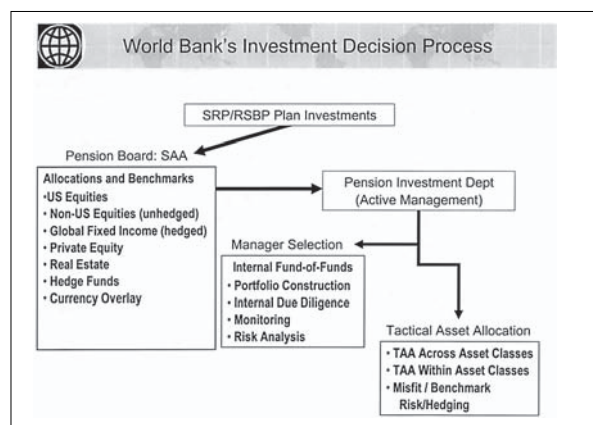
FRANCESCO MAINOLFI
Principal Investment Officer,
World Bank Pension Fund

We manage two plans at the World Bank. One is a staff retirement plan, which is roughly US\$10 billion in current assets. We also manage a retired staff medical benefits plan that is currently approximately US\$1 billion in assets. We run a pretty unique hybrid plan, which has both a defined contribution component and a defined benefit component, and we are fairly large in that we have approximately 18,000 participants to our pension plan globally, of which there are 6,300 retirees.

There are some unique features to our pension fund and our pension plan that affect the way we approach investing across all assets and affect our strategic asset allocation. First, we have full indexation to inflation. This was one of the commitments the World Bank made when they established this pension fund. Also—this is very unusual—part of our liabilities are in non-U.S. dol-

lars. One of the great aspects of the World Bank is that when you retire, because of the huge international staff, you can elect to have your pension paid in any currency you wish, and you can have that change as you move around the globe if you wish. Nor are we bound by any U.S. pension regulations or ERISA, but we try to adhere to them as much as possible in our investments. Finally, because we are an international institution, we are not governed or covered by any of the U.S. government pension guarantees. So, as a pension participant, I do bear some of the credit risk of the World Bank. That also does define the way in which I go about making the investments that I do in hedge funds, and it also defines how the entire pension team approaches investments. By the general standards of measuring funded ratios in the U.S., the PBO, we are actually overfunded, but the bank approaches this in a much more conservative way and uses the closed group methodology to compute our funded ratio. The bank decided to do this as a means of committing the bank to make regular contributions to the pension fund and not rely completely on the investment returns. In other words, it did this in order to have a much longer time perspective.

Operationally, we have a very flexible structure.

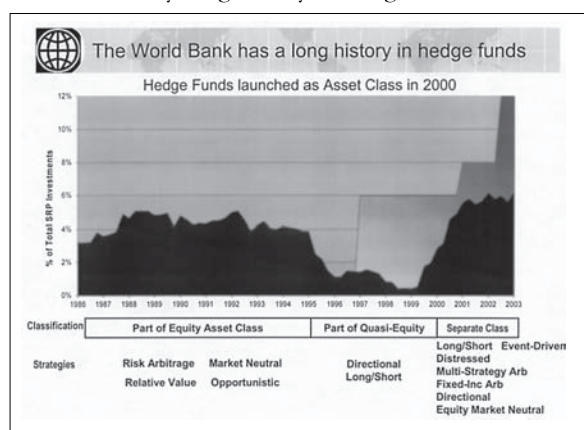


Pension investments are primarily set up as an internal fund of funds operation across all of the asset classes in which we invest: equities, fixed income, private equities, real estate, hedge funds, and our currency overlay program. Our pension board is actually very hands-off, in that they set the allocation amounts and risk return targets that are required of us and they stay away from manager selection and tactical positioning. Those decisions are left up to the pension investment teams that report to the director of the pension fund.

Another unique characteristic of our pension fund that sets it apart from comparable plans is that the World Bank has typically had, and continues to have, a lower allocation to equities than most other pension funds. In particular, we have a higher allocation to alternatives and hedge funds than is typical. In fact, our hedge fund

allocation is 12% of our staff retirement plan and 23% of our medical benefits plan. It is quite high; it exceeds many endowments and foundations, if you recall the statistics you saw presented earlier.

Why hedge funds? The World Bank Pension Fund views alternative investments as offering diversification benefits, return enhancement, and risk stability over that which we could achieve by equity and fixed income investments alone. Hedge funds, in particular, offer transparency and liquidity features that are not available from real estate and private equity investments, and the bank has decided to continuously increase the allocation to hedge funds over the history of our involvement in it, particularly due to the return and diversification benefits that we have been able to achieve. In fact, the World Bank has a very long history in hedge funds.



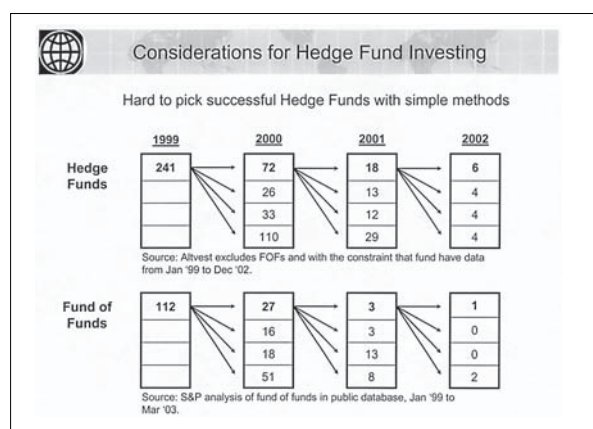
We made our first hedge fund investment in 1980. The program was primarily outsourced through the early 1990s and was brought back in-house at that time. It was run as part of the equities investments until 1998, when our pension board decided a separate and direct approach to hedge funds was warranted and the program was greatly expanded.

Hedge funds, as you have heard in many of the previous discussions, are a very dynamic asset class, experiencing significant change. Assets are growing, the number of funds in operation has increased steadily, and institutional participation is on the rise. Hedge funds offer a number of benefits, including great diversification opportunities and the potential for high risk-adjusted returns, and we believe greatly that when combined in a properly constructed portfolio, hedge funds offer the potential for consistent risk-adjusted returns, which is one of the main drivers for our participation.

The benefits are greater; however, there is always a caution that is worth noting. Investing in and understanding hedge funds is not easy. This asset class is characterized by a large number of fairly complex strategies with different risk-return profiles and market exposures, and so one needs to exercise care in approaching

the asset class. Looking at the relative ranking of various hedge fund strategies from 1994–2002, the strategy performance is highly variable over time, making it difficult to pick the best hedge fund strategies using simple methods and historic performance alone. The main point is that strategy diversification is the approach to take. Earlier, we saw some statistics on the Japanese pension fund experience with hedge funds and in interpreting one should bear in mind this graph that most of the Japanese hedge fund investments were concentrated in equity market neutral and long-short strategies. Over the last three to four years, they have been very variable in performance and have experienced some of the worst performance in strategies. I would like to make the case for taking an approach that is much more diversified across strategies.

It also ends up being very difficult to pick individual hedge fund managers using simple methods.

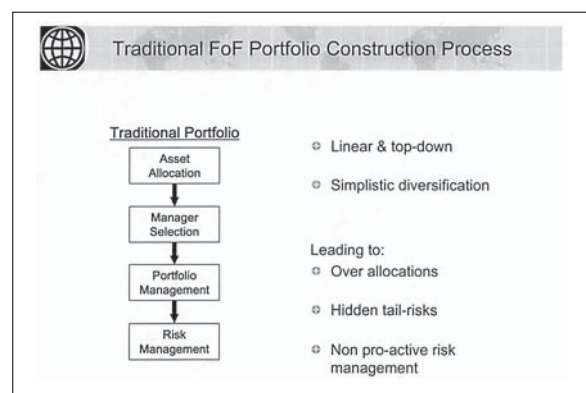


If we take a number of top quartile hedge funds beginning in 1999 and track their performance over the subsequent three years, we can see that, of the original 241 funds in 1999 that were top quartile, only 6 remain as top quartile in 2002. The story, unfortunately, is much the same if you follow a gatekeeper or fund of funds route. Over the same period, of the 112 top quartile funds in 1999, only one is still top quartile in 2002. Simple selection processes don't optimize returns at both the manager and strategy level. What matters most is how the managers and strategies allocations are combined in a portfolio. The aggregation of idiosyncratic risks and the effective diversification of these risks and strategies in a portfolio are paramount for success in this asset class.

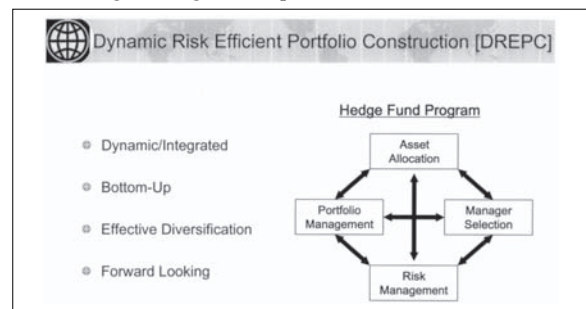
Here are some recurring comments from hedge fund managers that I (and others) have heard. Many of these actually relate to what many call the idiosyncratic or hidden risks of the hedge fund asset class. "Investing in hedge funds is not easy, particularly because there are a number of risks that are not apparent immediately from using standard or traditional investment tools." "Hedge funds have nonnormal return distributions,"

which means that, using standard mean variance techniques, we don't fully capture the risks inherent and we can tend to overallocate to the asset class if we are not careful. "While there are many different ways in which hedge funds are not market neutral, beta exposures and correlations are very variable over time." We've heard that over and over during the discussion. More importantly, in stressed market environments, these betas and correlations can quickly approach one, and so we lose the diversification benefits that we were seeking to obtain. In fact, as we have heard, many hedge fund strategies use illiquid securities. This is another source of inherent risk in the asset class, much because the use of illiquid securities leads to an underestimation of the risk and the volatility for these strategies and can lead to overallocations to them. Hedge fund strategies use leverage and that's a fact. Leverage is very difficult to measure, especially when the manager uses derivative securities. Finally, many investment strategies that hedge fund managers follow inherently are akin to writing insurance policies on market events. These implicit options in the strategy are more prevalent than we are led to believe. In fact, they exist across equity strategies and fixed income strategies.

At the World Bank, we recognize that standard techniques are insufficient in managing a hedge fund portfolio and approaching the investments.

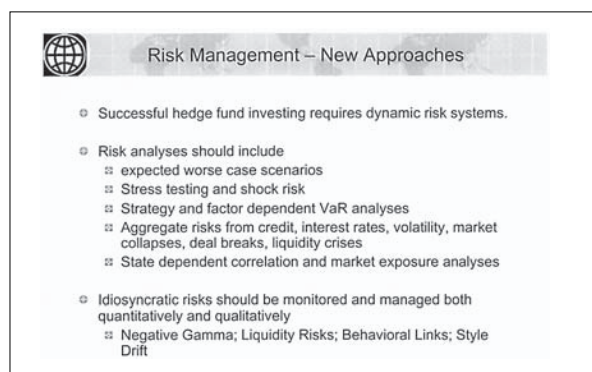


Our approach to building hedge funds was really to design a dynamic, risk-efficient methodology where we integrate the four principal components (asset allocation, portfolio management, manager selection, and risk management) in building a hedge fund portfolio.



The goal is to then be able to include these liquidity and event risk issues much more fully in the portfolio construction process. Essentially, the most important aspect of building a hedge fund portfolio is due diligence and not only initial due diligence, but the ongoing monitoring and due diligence of the fund. Many institutions fail at the latter. Once the hedge fund investment is made, it ends up being essentially a buy and hold approach, whereas much greater success could come from ongoing monitoring. Risk management for this asset class cannot be quantitative in nature alone. Value at risk and other standard risk measures are very insufficient in this asset class. The qualitative aspects are as, if not more, important. These qualitative aspects of risk management and portfolio management for hedge funds only become apparent in the due diligence process, in the ongoing monitoring.

We have a very multiphased process to investing in hedge funds. This, at times, annoys some of the hedge fund managers, because it takes us quite a bit of time to make an allocation. In the end, however, they realize that we are investing in this asset class for the long haul and this is necessary information. That is another key lesson in approaching this asset class: to really take the time to understand the strategies. Take the time to understand how this hedge fund fits within your hedge fund portfolio and then within your greater pension fund portfolio. The long-term experience is much better from that approach. The key for this asset class is risk management.



The number of events that have led to volatility spikes has been ever increasing in recent history. While this may

provide good opportunities for hedge fund managers, it becomes quickly apparent that managing risk is key to success in this asset class and you must be dynamic and multidimensional in the way you approach risk.

One final note on risk management is a quote from a very famous hedge fund manager: “The second worst thing is to have no risk system, but the worst thing is to lose the skepticism in the risk system you have.” The message behind that is to really evaluate and reevaluate continuously the objectives of your program, the rationale for investing in hedge funds, and the tools and techniques you use to both determine the allocation to hedge funds and monitor them on an ongoing basis.

Discussion

MASON

Mr. Furuya, in your view, should hedge funds be considered a separate asset class or a subset of a traditional asset class?

FURUYA

I think it should be considered in the final analysis as a separate entity, but one possible approach could include, as a phase, looking at it as a traditional asset subset. Ultimately, I think the risks and returns are very different from those of the traditional assets, so we should really consider alternative assets as independent and separate assets.

MAINOLFI

I feel it is probably a little bit of both. Many strategies can be thought of as overlays to traditional fixed income and equity investment: long-short equity, equity market neutral. The risk profiles are similar to the traditional asset classes, but many hedge fund strategies don't fit into these risk profile buckets, and so we, at the World Bank, look at the strategies in terms of their risk profile. We find that it ends up being easier and more efficient to consider hedge funds a separate asset class, because we can better aggregate and control these risks. So I am in agreement with Mr. Furuya. I think the best and easiest way to look at hedge funds would be to consider them a separate asset class.

MASON

Mr. Furuya, how does your institution assess the performance of hedge funds, and what role, if any, do so-called hedge fund benchmarks play?

FURUYA

Performance is not just composed of returns. Of course, you have to consider risk, downside deviations, or Sharpe ratios and Sortino ratios. You have to really look at these quantitative indices as well. When we pay

attention to hedge funds, we evaluate the performance, including quantitative aspects such as what is the size of the maximum draw-down; when that maximum draw-down is hit, how quickly you can recover; and what is the hit ratio, i.e., what is the probability and incidence of positive returns coming?

As hedge fund indices, we use somewhat relative measures, such as measuring correlations or diversification effects. It is true that there are all kinds of hedge fund indices, but depending upon what strategies are included, the performance is very different from one to another, and so you have to be very careful in using indices.

MAINOLFI

Officially, we use the S&P hedge fund index as our benchmark, but only insofar as it provides an indication of the opportunities available to hedge fund managers. It is really used as an indicator of general performance in the asset class. To benchmark our performance, we use the same criteria with which we selected and built the hedge fund portfolio, which is to examine the exposures across a wide set of risk factors of not only each of the individual hedge funds, but also the hedge fund portfolio. We monitor our exposure to, for example, credit spreads, our exposure to the slope of the yield curve, to volatility, and such.

MASON

Mr. Furuya, in addition to performance, what other criteria do you focus on in selecting hedge funds or perhaps even fund of funds? For example, hedge fund style, AUM, length of performance, manager reputation, use of leverage, and so forth. To be provocative, I believe it was Julian Robertson, the founder of Tiger, always said to focus on the manager—that ultimately you invest in people, not things. Do you agree? What are the key assessment factors? How is this process different from selecting traditional investment products?

FURUYA

As for investment style, we look at whether there is appropriateness or consistency. So, if the style the fund uses has drifted, this is a fund that we want to examine closely. Maybe a style that was valid and viable up to now suddenly becomes unviable all of sudden. That is possible, but we need to be careful there.

With regard to the total amount of fund assets, I think that there is a certain appropriate AUM for each strategy, and if the manager exceeds that appropriate AUM level, it means that the manager is, perhaps, somewhat greedy and wants to earn fees. We have to be careful about that.

As for the track record, I think that the principle of “the longer, the better” does generally apply. However,

in the case of hedge funds, as the life cycle of a hedge fund is relatively short, if we wait three years, then investments may be made when it is too late. The length of the track record may be secondary. It should be the people that we focus upon, the past records or achievements of the manager. It is the individual that I am talking about. The individual is very important to us.

With regard to leverage, for each strategy, within the peer group there is this standard level. As long as there is no great deviation from the standard level, it should be okay. In a case such as LTCM, which had a large leverage, I think this is quite evident from the quantitative aspect. As long as it is on a standard level, that would suffice.

As for the difference in how we evaluate our managers compared to our approach in traditional investment, I think that we are very much dependent on the individual managers as people, in the case of hedge funds.

MAINOLFI

We select funds using a multidimensional process with both qualitative and quantitative tools. At the end of the day, what matters most is how a fund fits into our portfolio's risk return profile. We assess this incremental impact of each of our funds to the portfolio along this multidimensional risk framework, but we actually spend the vast majority of our time in selecting the fund on the qualitative aspects of fund selection. We look for managers that can clearly demonstrate and articulate their investment edge and their skill. We look for experience and integrity, much more than the length of track record or the assets under management. We look for their ability to manage their strategy in difficult market periods. We are very concerned with transparency, not only position-level transparency, but the transparency of the investment process and the risk management process the manager follows.

We actually view our investments much more as partnerships, and we like to be involved and understand the environment the manager trades within, and so we obviously tend to move toward managers who have a much more free-flowing information source on this aspect. We spend quite a bit of time assessing whether a manager can run a stable business and retain the talent that he has gathered to build the strategy. More hedge funds fail because of operational problems and because they cannot run a business than actually fail because of performance issues. Mr. Robertson has it right—hedge funds are really a talent pool. Unfortunately, talent isn't always scaleable and so you really need to concentrate on assessing the talent that you are going to be investing with.

MASON

Mr. Furuya, as compared to U.S. pension funds, the data from the Pension Fund Association of Japan suggests that Japanese pension funds more often use

traditional investment managers, rather than gatekeepers or funds of funds, to help select hedge funds in which to invest. I realize you do not represent the entire pension fund industry of Japan, but could you give us your thinking as to this contrast?

FURUYA

This is my personal view, but, after all, while we use investment vehicles such as gatekeepers and fund of funds, there is another layer in between, that is the traditional asset manager. That is partly because we didn't have much information concerning fund of funds. Moreover, people were not really confident about the due diligence that they carry out. The investment scheme is for pension trusts, and so the trust banks had the accumulation of know-how.

The infrastructure of the pension funds would not be up to appropriate levels compared to the United States, especially in terms of the talent pool and the level of experience and the resource level. Therefore, we felt we could not do everything by ourselves. Outsourcing was sought by the Japanese pension funds to partner with a reliable outside manager.

Of course, the objective of being successful and investing in good and high-quality hedge funds would be the same between Japan and the United States. The route of access to good hedge funds is somewhat different—we had, if you will, a detour in Japan.

MASON

Dr. Mainolfi, do you have a view as to the apparently more common use by U.S. pension funds of gatekeepers or funds of funds, rather than traditional investment managers in hedge fund selection?

MAINOLFI

First, I'd like to comment on the fact that investing in hedge funds is very much a learning process, and the desire is always to be successful at the investments in many cases. Therefore, most approach it in terms of taking toeholds and to learn the process by doing and being very slow at it. Most of the institutions in the U.S. and the World Bank follow this process. Our first investments were through fund of funds and through an external process, and as we gained comfort with the asset class, we internalized it and began directly investing. I think the realization that it was very much a different beast than a traditional investment process led us to shy away from using traditional investment managers and gear more toward the expertise or using fund of funds for help in selecting and learning the business of hedge fund selection. Very much, hedge fund investing is a learning process, and the extreme costs are what have caused many of the U.S. pension funds, I believe, to take a very slow and very deliberate approach in this

asset class. For many U.S. pension funds, the risk they face is not the investment risk, but the "headline" risk. You don't want to wake up in the morning and see your pension fund's name next to the name of a hedge fund that either has been caught in a fraud or a blow-up, because going to work that morning can be a very long walk. During this learning process, having this extra layer gives an extra sense of security, in that there is a very dedicated staff of people at a fund of funds whose business it is solely to select hedge funds.

MASON

Mr. Furuya, to what extent is liquidity a concern when you invest in hedge funds, and how does this affect your overall hedge fund strategy?

FURUYA

Because we are a pension fund, given the nature of our assets and liabilities, we are really long-term investors. We don't really need to have high liquidity in all assets we hold. At the same time, however, if you invest in hedge funds, you depend so much on the skills of fund managers or, in case of fund of funds, on gatekeepers. You can really be subject to a deterioration of performance if a style drifts or if a talent exodus occurs. When you recognize that performance has deteriorated substantially, you want to remove risk by selling and liquidating your position. That kind of liquidity is very important.

A 60-day notice after deciding to liquidate the asset may give you liquidity. However, in our case, I would say that if we can recoup all the investments within three to five months, we take it as a sufficient level of liquidity.

I introduced you to the fund of funds and managed futures we invest in. We can liquidate the fund of funds on a monthly or quarterly basis, and the futures, on a weekly basis. Thus, we have a variety of liquidation periods.

MAINOLFI

First off, we tend to view liquidity in two ways. First, we view the liquidity of the investment with the manager of the hedge fund in terms of lock-ups and notice periods. Second, we view the liquidity of the underlying positions the manager trades, which we feel is a much more important thing to track and to monitor and of which to be cognizant. To invest successfully in any asset class, you need to have some investment horizon in mind. Especially as it relates to alternatives and hedge funds, if you don't have at least a year investment horizon, you will likely lose more by jumping in and out of the securities than you would be able to gain by having the extra flexibility. In general, we are fine with a year lock-up.

We are in a unique position in that we have a lot of bargaining power. We usually enter into side letter agreements that allow us to redeem in cases of style drift or key personnel no longer being involved with

the fund or other severe cases. What concerns us most, however, is the liquidity of the underlying positions. As an example, if I have daily liquidity with the hedge fund manager, but this hedge fund manager trades in distressed debt securities, then the fact that I can redeem my money in a day isn't very helpful. This is because the underlying securities aren't priced or traded on a day-to-day basis, and a forced liquidation of that hedge fund portfolio to meet my redemption can actually be more damaging than if I were to wait for three or six months for the portfolio manager to trade out of the position. What we look for is a match in the liquidity of the investment in the fund and the liquidity of the underlying securities that the manager trades. Obviously, if someone wants a three-year lock-up to trade futures contracts, we have a problem making that investment, just as we have a problem having weekly liquidity with someone who trades distressed corporate debt. It is one of the trade-offs, one of these balancing acts, with liquidity. The underlying positions or securities traded are really much more important in determining the risks of the investment than the actual liquidity you have with the manager. A little bit of bargaining power helps solve the first problem.

MASON

Mr. Furuya, how important is transparency to you in both manager selection and monitoring after an investment has been made?

FURUYA

Generally, it is correct to assert, "the higher the transparency, the better," but if we do receive an excessive amount of information, we investors cannot really digest that flood of information. For the manager, the positions they hold are actually a trade secret. We, as an investor, should respect this. Of course, we do want to know the investment process—the sources of return and of risk. We need full disclosure. That would be quite sufficient.

MAINOLFI

Transparency is very important to the World Bank and to our investment process. That's both transparency at the initial investment phase, or transparency phase in the risk management process and operations of the hedge fund, but also for ongoing transparency. We have currently 35 hedge fund investments, and we receive full position-level transparency from about 80% of the managers. From the next 15%, we receive detailed exposure reports. All of this information is piped through an external risk platform that gathers the information and compiles it for us, so we went the route of really devoting the resources to build the platform to be able handle the information. My team and I have designed many of the risk processes, and we have used the external platform

to give the hedge fund managers comfort to provide us with that detailed information, even if they would not otherwise provide it to other hedge funds. We feel that for our investment process, it is important to have. We stress that.

MASON

Mr. Furuya, how do you manage risk in fund selection and fund management? What are some of the really important issues we have to keep in mind about risk and how to deal with it?

FURUYA

As I said before, our portfolio uses gatekeepers. We don't really do the individual fund's risk management. If you are invested in 80 funds, it becomes very difficult to get directly involved in an individual fund's risk management, and we have assigned that task to the gatekeepers because it is better for us.

Of course, you need to analyze the strategy of each hedge fund. You need sophisticated knowledge and expertise to do that effectively. In quantitative analysis, the return distribution does not follow the normal distribution. It is very difficult to come up with statistics that are in any way significant and meaningful. My understanding is that VaR and methodologies to quantify risk are something that is very difficult to apply.

If you look at the detailed aspects of risk management, I think you should really leave it to the gatekeepers, because they have better tools to do that. We look at the fund of funds as a single sort of investment and look at the diversification effects with other traditional asset classes.

MAINOLFI

Risk management is integral to the entire investment process for hedge funds at the World Bank. We've spent quite a bit of time and resources building very much a redundant risk platform. We both monitor and measure risk internally within the hedge fund group, and we use this external platform that I mentioned to also run processes and handle the information flow. To any risk system, in agreement with Furuya-san, you need multiple processes, and, given the nature of hedge funds, the risk system needs to be very dynamic. From a technical perspective, we use factor risk exposures, and we monitor the links between these factor risks exposures for each of the hedge funds. We use stress and scenario analyses. We do quite a bit in terms of extreme market and tail-risk analyses for the portfolio, and we measure this optionality of the portfolio and directionality of both the managers and the strategies within the portfolio. In many respects, I agree with the statements of VaR being insufficient. In many ways, value at risk tells you how much you could lose if everything goes right, meaning

your assumptions that you made to come up with this value at risk model all have to hold in the market. We all know that whenever you need these models to work the most is when they don't, and so we really rely on multiple sources for measuring the risk and to be dynamic. Concentrating also on the qualitative aspects of risks and the operational risk management of hedge funds is very important in this ongoing dialogue and interaction with the managers. Our ongoing due diligence process is the most important aspect of risk management. In fact, the real work in hedge fund investing comes after you have made the allocation and not in the process by which you arrive at the allocation—the ongoing monitoring and interaction and information flow with the managers.

MASON

The rapid growth of the hedge fund industry has begun to attract greater interest on the part of government regulators, at least in the United States. I would like to ask the panelists, beginning with Mr. Furuya, about whether there will be greater public regulation of hedge funds. I would add a footnote that the U.S. SEC released a very detailed report on the hedge fund industry, including regulatory issues. In addition, Mr. Furuya, what are your biggest concerns about more regulation? If there is more regulation, do you think it will increase or decrease the attractiveness of hedge funds to institutions such as yours?

FURUYA

The SEC recognizes those hedge fund managers as investment advisors and may move to have them registered. The level of attention to the hedge fund industry

is heightening, and I believe that the regulation will be reinforced further.

I think the point that is noted by the SEC is the process of fair valuation of the portfolio. The accuracy of the return and disclosure of information, I believe, will be improved. From the long-term institutional investors' point of view, I think hedge funds will become more attractive.

MAINOLFI

On the perspective of there being more regulation, I do believe that is the case. The worry is how burdensome this regulation is, because the big risk is that, with more regulation, the regulators don't really understand the asset class, and usually, when that is the case, regulation is very inefficient and overly burdensome. The real risk with hedge funds is that they will lead to a bifurcation of talent. The good hedge funds that have no problem raising assets will be able to move offshore, not be subject to the regulation and still be able to attract the offshore investors. The mediocre funds will satisfy the regulations and stay onshore and have the great pool of domestic investors to attract.

The real problem is that I think a lot of times, regulation leads to a false sense of security. My big fear is that many pension plans, many investors will allow regulation to supplant their own investment process and take comfort in the fact that the SEC has said they are going to monitor style drift, even though they don't know what style drift is, and that means that the investor won't need to contact the portfolio manager or track the investment. I think this institutionalization or regression to the mutual fund industry is really problematic.

Panel 3: Real Estate



MODERATOR:
NOBORU YAMAGUCHI
Executive Vice Chairman and CIO,
JTB Pension Fund

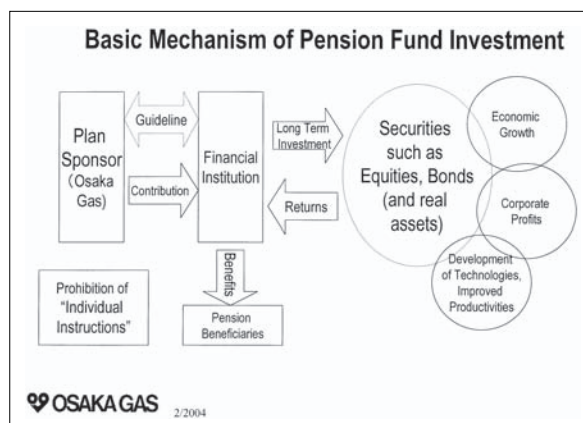
As mentioned earlier by Mr. Nakamura of PFA, Japanese pension funds have only just begun investing in alternative investment vehicles, especially real estate. Today we have invited a representative from a Canadian pension fund with a long history of real estate investing and a representative from Osaka Gas, who has already started investing in Japanese real estate-related products. We are all here to learn from our predecessors in this market. The experiences of the panelists should help us understand what we need to be careful about for a smooth introduction into real estate investment; what are the things that we should and should not do when starting fund management. First, I would like to invite Mr. Ishida of Osaka Gas to give us that report about his experience and then ask that Dr. Leo de Bever of the Ontario Teachers' Pension Plan to do the same.



HIDEKAZU ISHIDA
Investment Officer, Osaka Gas

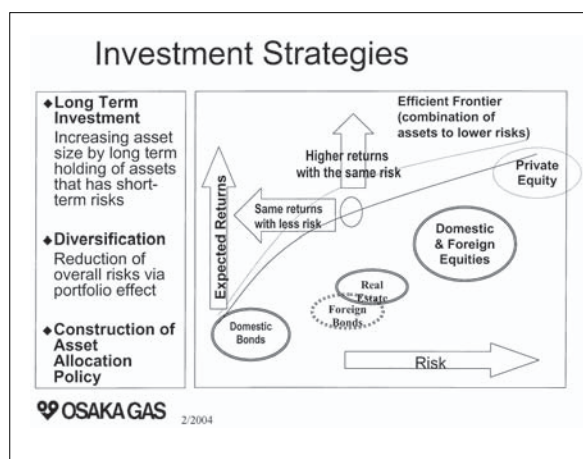
Osaka Gas Tax Qualified Pension Fund was established in 1974 as an external qualified fund and is not an employee pension fund. Many companies in the utility industry have this kind of pension fund scheme, so although we exchange much information with PFA members, we unfortunately are not a member. Concerning the structure of the pension fund, we primarily run a lifetime pension plan with a 15-year guarantee, with a standard payout of 80,000 yen per month for union members. The industry average is high, and we are trying to catch up with the standard. We currently have some 8,000 active participants and 6,000 beneficiaries, so we are by no means a young plan. Considering we must pay out lifetime annuities and the longevity of retired individuals is very long, we must manage our liabilities pension with the long term in mind. There is also a management commitment to do so.

As for our PBO situation, we have a 269 billion yen PBO, including one-time payouts and annuities. Against this, we had pension assets of 160 billion yen and a return reserve of 66 billion. We are seeing an expanded recognized difference because of the poor economy of the past three years, the same as anybody else, I believe, in this area.



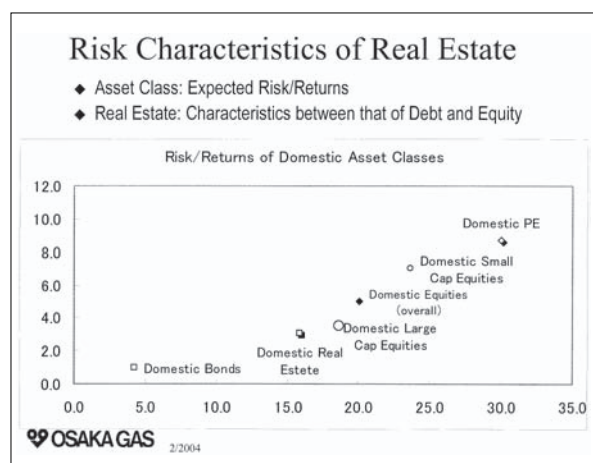
Qualified pension funds differ from welfare pension funds in that they lack an independent investment committee. Therefore, it is paramount that the number one rule is prohibiting individual mandates, and it must be followed. That has to be there because we follow plan sponsor fiduciary duty. The role of the sponsor must be only to provide investment guidelines to the financial institution and monitor the results.

As for the investment strategy, again this is something that is well known to PFA members, because we have simply emulated what you are doing.

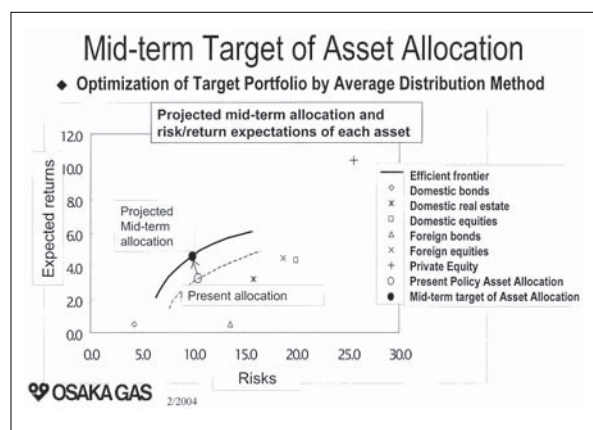


We have long-term investments, portfolio diversification, asset allocation policy decision making, and continuous rebalancing to manage risk.

Since 2000, we have invested in nontraditional asset classes such as private equity and real estate in order to maintain the same risk with a higher return or the same return with lower risk. That is what we are trying to do. Today, I will focus on real estate-related product investments from the pension fund perspective.



We started by understanding how we can position real estate with other short-term investments. However, positioning real estate as one sub-asset class didn't work very well. So, starting in 2002, we started to identify real estate as an independent asset class and included it in the asset allocation policy decision making. By identifying it as an independent asset class, it had to have a specific return-risk target assigned to it, and we were able to include it as an important part of our asset allocation policy. At the time of reviewing asset allocation policy each year, we review the situation. We position real estate as having characteristics somewhere between debt and equity. This was based upon Western research data sources, so greater risk was weighted to adjust for Japanese real estate. Japanese domestic real estate has exhibited very high volatility over the past 10 years, costing many investors in this asset class a great deal of money.



When including an asset with low liquidity, an interim asset allocation target must be set. For example, if this were private equity, we would not reach our target asset allocation for, say, five to six years. Our fund identifies a midterm or interim target, and then we work backward to take into consideration the amount of purchases per annum we can make to arrive at an asset allocation policy target for a one-year period. When

beginning to invest in real estate products, I'm sure that you are having the same problem that I had in setting the initial targeting of the size of the fund. In asset allocation policy, the decision to position real estate as an independent asset class and target a certain weight in the portfolio is the fundamental job of the sponsor. Those of you who have followed this process know that there is no impact on asset allocation policy unless we allocate at least 5 to 10%. Any less, and the asset class becomes solely decorative. This means an initial decision must be made to commit to investing a certain weight. From there on, the kind of products to choose within real estate, be it buildings, anonymous unions, REITs, etc.—there are several possible products. The decision is based on proposals from financial institutions. Suitable ones are chosen according to the type of fund.

Investment towards Securitized Real Estate			
Type	Description	Merit and Concerns	Osaka Gas
Direct Ownership	Direct ownership of real estate	Requires know-how in the real estate appraisal and management	×
Securitized Products	Securitization of rental income from large-scale build. properties and combining them into small lots	Requires know-how in the real estate appraisal. Excellent properties tend to have smaller return on investment.	△
J-REIT	A listed investment entity that has diverse investment portfolio of multiple building properties	Although little well known, enables diversification and liquidity for investors. Expected dividend is attractive 4-5%	◎
Opportunity Fund	A method of aiming capital gain from appreciation of property that was acquired at below market value.	High value-added (10-15%). Success based reward results in alignment of interests with the investor.	○

OSAKA GAS 2/2004

When it was proposed to do this in house, I divided the investment alternatives into four major categories. I explained that the investments would be limited to securitized real estate, despite describing it as investment in real estate-related products. I am sure every company has experienced one or two failures in investing in real estate. Direct holding of real estate requires know-how and skills of appraisal, as well as management, all of which is very time consuming. There is a strong reluctance to the direct holding of real estate. Therefore, although we call it real estate, we actually mean securitized real estate that is close to a financial instrument. That's our definition of real estate investment.

Real estate that is converted into financial instruments falls under the SPC law, such as securitized products, J-REITs that are traded on the Tokyo Stock Exchange, and opportunity funds that take advantage of anonymous unions. For more than 12 months now, we have put more than 80% into J-REIT, and we have also committed the remainder of our investments into a number of opportunity funds, so our investment in the real estate area has been a combination of J-REIT and opportunity fund investment.

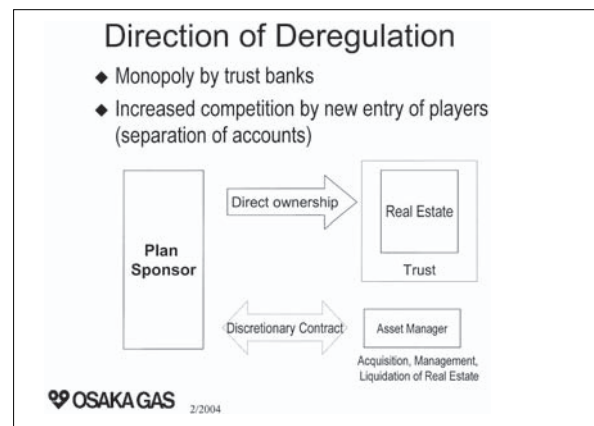
What are some of the issues? We are not positioned to evaluate individual pieces of real estate and say, "We like it, so we are going to invest." It would be fine if the pension asset management institutions could provide the investment decision making, but outside publicly traded J-REITS, this is not possible with SPCs and private funds. In this situation, we commonly work with trust banks on an individual basis. This means that a sponsor will have to take on a portion of the trustee's fiduciary duty. We do not have expertise in-house in the area of real estate investment, so it is very important that we know how these trust banks can be held responsible. In this case, a blind pool is more favorable than proposals with specific assets. We don't want these companies to come to us showing us pieces of real estate and asking us to make decisions. We would rather find a reliable management institution with proven capability and a strong performance record of real estate management. It would be much easier to work with investing in real estate under the management of someone reliable. Although we may not be able to properly evaluate real estate, we can determine whether a management company is good or bad.

After deciding on a management company, the next important decision is how we can monitor and exercise our governance over this company and its people. When everything is moving along well, it isn't a problem, but when the vacancy rate goes up or if we are asked to invest more, how can we make sure that these people will be on our side? The biggest issue is to identify someone who will help us maintain the quality of these investments.

<ul style="list-style-type: none"> ◆ "Separate Agreement" to Trust Banks/Fiduciary Responsibility of Plan Sponsors ◆ Affinity with "Blind Pool" ◆ How do you exercise governance? 			
	Vehicle Provider	Method	Real estate "manager"
J-REIT	Trust banks (Investment Advisor)	Investment Guideline: Establish custom bench mark comprised of multiple securities (similar to equities investment)	Each management
Opportunity Fund (blind pool)	Trust bank	Jointly conduct due diligence with a trust bank on a private fund manager, then conclude a "separate agreement."	Fund manager
Securitized Matter (ex. SPC)	Trust bank	Unpracticed (issues exist on locating property and/or long-term ownership of property)	Capability of asset manager

What is the relationship between J-REIT and the listed company that acts as the sponsor of the J-REIT? J-REIT management will go through appraisal, evaluation, and baseline criteria, and they have been tested by the capital market, so they have met the initial target. From there on, performance will determine whether they are bought or sold, the same as any equity. In the case of opportunity funds, it is a long-term static contract, so we will continue to monitor the fund manager and

ensure there are no violations of fiduciary duty. Finally, there are certain securitized products that are sold, provided the underlying specific asset is held over the long term. We have not actually dealt with this one. One reason is that governance is difficult. Of course, this type of product has an assigned asset manager and property manager, so their cooperation is expected. However, in most cases, the contracts for the asset manager and property manager are fixed for a long period of time. So even when performance of these real estate management companies is poor, the structure is such that we as a pension fund cannot intervene. It is like being asked to trust blindly and that is a very difficult decision to make, so we have not gone into these kinds of securitized products.



Concerning the direction of deregulation, we believe that it will eventually be favorable to move toward direct holding. Currently, there is an oligopoly by the trust banks as far as real estate products are concerned; competition needs to be introduced, with new entrants. If a sponsor directly holds real estate, for example, there should be a separate contract for property and asset management that can be agreed upon. It is going to be more of a blanket approach, but based on that property management contract, a third party can monitor real estate management to ensure it is being done in line with what we are asking them to do in the contract. It's going to be much easier than the current situation where trust banks are there at every level, and it will be necessary as pension funds purchase larger assets.

Japanese pension funds will look increasingly to real estate investment, but there are many things that need to be done within the industry. We need benchmark performance checking criteria. Currently, it is very difficult to see what kind of risks exist and when we can say the trustee made decisions responsibly. Research related to this asset class, in other words, data concerning past market movements, has not been disseminated to funds.

I would also like to say that real estate is similar to private equity in that they are both asset classes that

require the exchange of information among investors. I think that needs to be enhanced. This asset class needs more information and that information should be shared among sponsors related to particular forms of real estate products since very little is publicly available.



LEO DE BEVER
Senior Vice President, Research and Economics, Ontario Teachers' Pension Plan Board

I want to tell you a little bit about who we are, how we manage our fund, why we use real estate, how

we hold it, how our direct strategy differs from a REIT strategy, and how domestic real estate differs from foreign real estate. We take care of the defined benefit pensions of 250,000 Ontario teachers. We manage 90% of the assets that back those pensions internally, and by an accident of history, we became very adept, early on in our history, in using derivatives to change our structure. Our pensions are index-linked, meaning they go up with inflation, and the risk of deficiency is shared 50–50 between the two sponsors, the government and the teachers' federation. Of course, this was done during a period when we thought that risk only had a return, that it had no downside.

Managing a pension fund is a little bit like being a doctor. You want to make sure that whatever care you give improves the patient, and you want to limit the risk that you inadvertently kill him. So, in risk management, we want to focus on catastrophic risk in the plan and that is why we focus in our risk budgeting exercise on a value at risk type basis on the 1% worst annual outcome. We use the historical variant of asset liability value for risk management, and we do that to avoid having to make assumptions about distributions and correlations.

Our whole approach is risk based. It's risk-return, risk-return, and the more we do that, the more difficult it becomes to relate what we are doing to traditional asset policy mix. Of course, we need to be evaluated on how well we are doing in terms of delivering short-term return on risk, and for that purpose we still need a benchmark, and for that you need a policy mix. Our policy mix has three main components: equities, fixed income, and what we call "inflation sensitive assets." You notice there is no reference to alternative assets. There are alternative assets in all three categories, and we try and use alternative assets where we think we can earn incremental return and put the balance of the category into listed index assets. We overlay that whole passive structure with active management, and then we control the asset liability risk of the total amount. In this case, we are saying we want to ensure that in the worst one year in a hundred, we will not see our funding ratio decline by more than 21%.

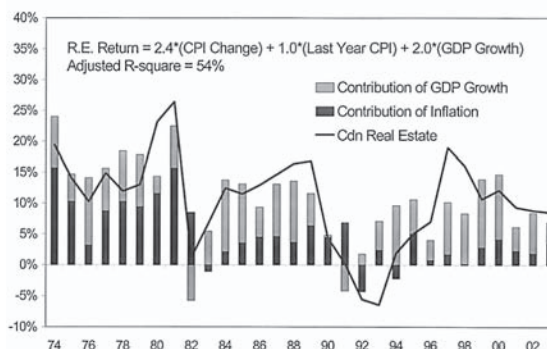
What makes real estate attractive in that structure?

What Makes Real Estate Attractive?

- **Stable long-term real returns from "bricks and mortar" hard assets**
 - Diversification to stocks and bonds
 - High and stable income yield
 - >1% real return per 1% increase in real GDP
 - Cyclically sensitive
- **Hedge against inflation**
 - ~1% return per 1% inflation
 - ~2% return per 1% change in inflation

Well, if you have an asset class that doesn't look like the ones you already have, initially, any optimizer will tell you that that is a good thing. The question then becomes: "How much should you have? Can you have too much of a good thing?" The nice thing about real estate is that it is relatively uncorrelated with stocks and bonds. It does have a return, as my colleague indicated, somewhere between bonds and stocks. It is related to the real characteristics of an economy, so if your economy is growing relatively fast, you should expect that the income stream of real estate will grow with the economy. One drawback is that real estate is cyclically sensitive, so when the economy has a recession, real estate will do relatively worse. The other nice thing, in a fund that has liabilities that are linked to the CPI, is that real estate is extraordinarily sensitive to inflation. The valuation of the cash flow goes up more or less with inflation, and it is very good at capturing unexpected inflation. In other words, inflation, when it accelerates, will be quickly reflected in real estate prices.

Return Drivers: Inflation and GDP



Looking at the historical 30-year experience with a breakdown in the various components of that equation for Canada, you can see that on the whole, that relationship seems to hold fairly well. In other words, the link to inflation, the responsiveness to changes in inflation,

and the link to GDP hold up. The GDP part may be slightly overstated; real estate is location sensitive, so you should take care that the local economy where your real estate is located is growing relatively fast, because some parts of an economy may grow faster than others.

We have not picked a “NACRIEF”-type benchmark. The reason for that is we studied the benchmark that is available for Canada as well as the one for the U.S. We don’t find it particularly reliable, so we picked an absolute return benchmark. We argue that in the long run an economy like Canada’s is growing at about 3%. Real estate should have an absolute return of about CPI plus four. We want to motivate our managers to find assets that can earn at least that kind of return. We expect that with good management we can add value as first quartile managers, of around 2.5%. I agree that the volatility in the asset class is somewhere in the 10% range. Again, one problem with real estate is that since prices are not observable every day, in direct holdings at least, you tend to underestimate the volatility. We basically do that in our risk system by assuming that the observed volatility is underestimated by a certain amount.

The kind of return we are aiming for has everything to do with the building itself and nothing to do with the financial engineering. We can do financial engineering through a mortgage much easier in our fund outside of real estate than inside. Sometimes, however, you have to take the real estate with the mortgage, so we put the real estate, the bricks and mortar, in the inflation sensitive asset as a real return asset, and we put the fixed income in our fixed income as a negative holding, and we put management as part of our asset mix holding in fixed income.

What do we hold?



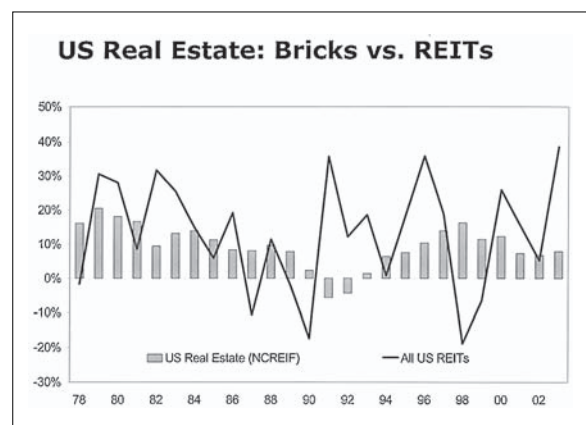
We hold mostly shopping malls and office buildings. I would say that the split between shopping malls and office buildings is heavily in favor of shopping malls. Office buildings tend to be more volatile, and hotels tend to be more volatile still. We concentrate in large, urban areas. In other words, we focus on high-quality real estate, and we have stuck to Canada mostly. The U.S. is

not too bad in terms of inflation correlation with Canada, but in our own market, we have been able to build much higher quality real estate than in the U.S. market.

How do we hold it? Throughout most of the 1990s, we held our real estate internally. We had an internal manager who managed the buildings directly. We farmed out the physical managing of the shopping malls, but we managed the process of investment and we had partnerships with real estate companies. One of those real estate companies was Cadillac Fairview. We held about 25% of the company; then we had a disagreement with our other partners, Goldman Sachs and Blackstone. There was one of those clauses where “you buy me out or I buy you out,” and we ended up buying out Goldman and Blackstone. Now, we have a captive, 100%-owned real estate company.

We set the investment strategy. Initially, that was quite a change. They tried to negotiate until we made it clear that they were now working for a pension fund and that’s the way it was going to be. Since that time, the relationship has become very amicable. In fact, I am going there next week to talk to them about our strategy for the next four or five years. We evaluate management on their ability to generate return from bricks and mortar.

Why don’t we hold more REITs? I think the only reason to hold REITs is that you want liquidity; we have liabilities going out 80%, and it is nonsense to hold a large proportion of our assets, assuming that we are going to have to cash them in tomorrow. There should be a return for being a patient investor, for being a long-term investor. I think REITs are sensitive to shifts in moods between the stock market and the property market. They tend to be heavily invested by private investors. They have different motivations and, again, are very short term in their orientation. We feel that is not the place for us to be. The U.S. has more REITs to draw from, so I use them as an example. If you look at these REITs, you can see that the volatility of the REITs returns is much higher than the NACRIEF index.



Even accepting that NACRIEF understates volatility to some degree, the difference seems to be rather acute.

If I were a Japanese pension fund, I am not sure that I would be eager to jump into the property market. Why would you own foreign real estate? In principle, there is nothing wrong with it. If you are in Canada, and you are next to the U.S., the volatility between the two markets is not very high, so you might go to the U.S. However, if you go from our market to, say, Japan or to Europe, that would be a different story. The currency volatility becomes so large that the investment starts to take on the characteristic of an equity, and even if you hedge that currency exposure, you find that the CPI in foreign markets that are far away isn't always correlated with your own CPI movement and that is what you wanted real estate for in the first place.

The same argument can be made about a developing market. We are getting a lot of proposals about investing in emerging markets. They have better demographics, higher GDP growth, so in principle, my model would say that is a good place to be, for real estate. Again, however, that is more like an equity investment than a real estate investment. You may still want to do it, but not because it is real estate.

In summary, you want to be in real estate if you think you have an inflation problem. You want to be in real estate when you think GDP growth is relatively strong in the locale or the economy in which you are investing. This means that over time, even in North America and Europe, real estate will probably become less attractive as an investment if the growth rate of those economies starts to slow down. Then, you may want to go to emerging markets where you have rapid growth and where you have rapid growth in population, but you may invite problems that may make the investment not quite as attractive.

Discussion

YAMAGUCHI

I was in London from 1977 through 1982. In 1977, the inflation rate was very rampant, 22%, so it was important that you were invested in real estate. I was also in New York from 1988 through 1994, and at that time, New York was experiencing a real estate bubble with the Japanese buying up as much as possible. But then in 1992, 1993, the bubble collapsed and it was very difficult. I came back to Japan and the very first year, I had to dispose of properties that had lower market value than book value because mark to market accounting was introduced at the end of March 1998. I had to dispose of properties at a huge loss of 90%. I have this bitter experience.

I know that there are various points and considerations you have to be careful about. Real estate is a long-term asset; it does not have sufficient liquidity, so if you're going to invest in real estate, you need to research

very carefully before starting. I became involved for the purposes of diversification, and I am just now learning. I was involved in New York property markets, so I know a little something about the real estate market, but I assume many of you are about to begin investing, so I would like to start with some basic questions.

Listening to the two presentations, I felt there are very important differences among the real estate markets of Canada, America, and Japan. Perhaps because of historical development, there is especially a difference in the stage of development amongst the markets. Our answers may not really meet eye to eye, but it is important to understand the differences.

Mr. Ishida, in projecting the risk-return profile and determining the distribution, what kind of data did you use to ascertain the risk-return relationship? Historically, the Japanese real estate market has been highly volatile, and a distinct characteristic of Japanese real estate is its high leverage ratio. People don't really think of it as somewhere between equity and fixed income. I think volatility was worse than equity in the case of Japan for the real estate market. What kind of data and statistics did you use to come up with this sort of risk-return profile for the real estate market?

ISHIDA

I obtained past statistics for periods longer than 10 years from multiple real estate index providers. Most of these numbers take real estate value before leverage and use a number of assumptions to calculate the return. You have to have a considerable set of assumptions, but index providers do provide those statistics. We used that and also worked with some institutes to develop an optimizer jointly.

I agree that the historical data is not of much use to you, because when you look at domestic equity and domestic real estate, the correlation is quite high, .9 or above. Equity and domestic real estate assets in Japan are very closely correlated. If you think about it, up until the early 1990s, for listed Japanese companies, investing in real estate was really a crucial business activity. For my generation, the sales pitch to new recruits in a company was the opportunity to develop land or buildings. For Japan, Inc., investing in property was an important source of income. The property market data 10 years ago and the equity return correlations were close because of that behavior of Japanese corporations. As a pension fund, you have to have forward-looking assumptions about risk and returns. If you look at what listed corporations are doing or financial institutions are doing, you will certainly know they are not in the property investing mode. I think eventually there will be an appropriate level of correlation and an appropriate level of risk.

YAMAGUCHI

Dr. de Bever, how do you estimate adequate risk and return in deciding upon your investments?

DE BEVER

Our chairman went through a similar situation in the early 1990s. When we were buying Cadillac, his experience was that real estate was a heartbreaker and you could lose a lot of money there. That's true, but you never want to buy stuff when it is really high. We all remember these calculations that said that Tokyo real estate was so valuable that the imperial palace was worth more than the state of California. When things get to that level, then starting conditions do matter. That's true for the equity market and that's true for the property market. You always want to buy when nobody else wants to buy. At the current time, there are a lot of U.S. and Canadian markets that are starting to look more than fairly priced because a lot of retail investors have discovered the real estate market and there are fewer other places to hide.

We do have a risk history. We know what the risk is, we know what the return is, based on what rental rates on buildings are, so if the valuations based on that rental stream start to get out of whack, we tend to sell a little, and when conditions are unusually favorable, we go the other way. Experience has taught us that over a period of 10 or 20 years, these things even out, so given that it is an asset class that is hard to get in and out of, you should not get unduly excited about the bumps in the middle.

YAMAGUCHI

I feel the difference in the history of the two countries; the real estate index in Japan does not have enough data for a basis. Are the Canadian indices reliable?

DE BEVER

No, they are not. There is not enough depth. Canada is a relatively small country, not in land mass, but in population. It has a population about the size of the state of California. The indices are not really good, so that is why we opted for a real return index, which is, by the way, a very fundamentally different way to look at a benchmark. There are two ways to look at a benchmark. One is to make it easier to measure the manager. The other is to evaluate what you need out of an asset class to serve your clients. Our clients need a return that is more than bonds and less than equity, given that the risk is less than equity. We have opted for a benchmark that tries to look at what the client needs, rather than one that makes it easy to measure the manager.

YAMAGUCHI

I think there is a difference in the perceived level of

liquidity between Canada and Japan. What are your thoughts on liquidity, Mr. Ishida?

ISHIDA

Liquidity is not very high in the real estate market. That was my original impression, and even after starting to invest, not being able to invest as much money as expected is one of my concerns. However, the market for newly issued J-REIT is quite large; about several hundreds of billions of J-REITs are being issued annually. If the J-REIT market were not as heated as it is right now with institutional investors taking up considerable positions, the opportunity to purchase in several billion yen increments would be there. Whether several billion yen in trading would be enough liquidity really depends on the size of the pension fund. On an annual basis, we have purchased close to 10 billion yen in J-REITs, and by timing the market to the date of issuance, we were able to minimize our transaction cost. Ten billion yen of real estate may not be enough for a very large pension fund, so whether that level of investment would generate a sufficient level of liquidity would differ, depending on the pension fund and depending on the investment policy. Research carried out by Nomura Real Estate, I believe, showed that the transaction volume of real estate in central Tokyo is very high, even according to international standards. This means that we have a greater investment opportunity in real estate, even outside J-REITs. It is not like the domestic equity market, where we could buy 10 billion yen tomorrow if we wanted. The liquidity is not that high, but at least it is different from private equity, which only trades 100 million yen on an annual basis. I think it depends on the size of the pension fund.

YAMAGUCHI

According to surveys of pension funds, there are concerns about liquidity when investing in real estate in Japan. This is most likely due to the small size of the market. What about the liquidity situation in the United States or Canada?

DE BEVER

I would reiterate that if you are going into real estate for liquidity, you are doing the wrong thing. It is not an asset class where you should aspire to get in and out like you do in private equity or listed equity. To give you some impression of what the liquidity is like, this year, we readjusted our portfolio and did some buying and selling because Cadillac Fairview had acquired some properties that we did not think fit our particular profile. We were able to sell a billion dollars of real estate without any serious difficulty. There is liquidity, if you are willing to be patient and tend to sell into

periods when there is a capital rate shift such as may be happening right now, when retail investors who lost money in the stock market are piling into the real estate market, with the risk that they may lose some more money in the real estate market. There is enough liquidity, but that should not be your focus. I want to state that again. If you are buying these properties, you should be willing to hold them for 10, 15, 20 years.

YAMAGUCHI

To hold the property for 10, 15, or 20 years may involve running into business cycle and stock market downturns, contract renegotiations, and other unforeseeable events in the future. Although investments in real estate in Japan do not at the moment call for an exit strategy, what kind of advice have you received from fund managers, Mr. Ishida?

ISHIDA

It's not necessarily an exit strategy, but I expect REITs to become the final owner of Japanese commercial real estate, so the REITs themselves would be an exit. Of course, there would be times when we have to sell the REIT. We are not a very large fund; but we already own slightly more than 1.5% of the REIT market. In fact we own 4% of some REITs, which is something we can achieve in equities, for example. This level of concentrated holdings in REITs I think would take more than a year to sell.

What we have to be careful about is the proposal of the private fund. We have to have a very clear exit strategy, and after the value increases, we should seek a new owner and try quickly to sell that property. This structure has a clear end to the investment cycle. The current real estate price and yield gap would create opportunities for investment. The goal is to target properties that are undermanaged, to enter reasonable investment with new capital and turn the property into a profit-generating piece of real estate. If that is the strategy implemented, then sufficient capital gain can be realized with the transition of the ownership. That would be the major aspect that we focus upon when we look at these private fund managers.

Private funds whose objective is to hold real estate for the long term are the concern. As Mr. Yamaguchi mentioned, such deals would be exposed to business cycles. There would be good times and bad times in terms of financing, and usually the time horizon would be five years, so after five years, how do we refinance? That's something that we have to be careful about. If we keep holding that real estate for a very long period of time, then how are we to identify these new investors that would take over the property eventually? At a more realistic level, the private, anonymous-type investment

partnership that pursues the holding of real estate over a long period of time is not really up to an appropriate level here in Japan. This is because asset management fees are too high. Fees are calculated not against net rent income, but against the value of the underlying real estate. By applying an 80% leverage level, the initial yield that is generated is quite high. So it may superficially seem very attractive, but the fees are too high in these cases and you have to be very careful about that.

YAMAGUCHI

In Canada, do you have any challenges in terms of exit strategy?

DE BEVER

We don't think much about our exit strategies, as I said before. The disturbing thing about this discussion is that leverage is such a big part of your thinking and I am not sure it should be. The basic characteristics of real estate have to be the income that comes from the buildings. The reason that Cadillac Fairview, by the way, ran into trouble as a stand-alone company was exactly that. It was over-leveraged in the early 1990s and went bankrupt and then got bought by Blackstone, Goldman and Teachers. Real estate within a pension fund is a totally different animal, because you can separate the risk in the real estate from the risk in the financing. Having said that, you may be right. In a country like Japan, unless you think that real economic growth is going to become 2%, 3%, 4%, and unless you think that over time you are going to have an inflation problem that you need to cover with an investment like this, Japanese real estate may not fit a pension plan that needs to meet CPI index obligations. That is a separate question. If the model that we are using in North America is applicable, then finding investment objects that meet those investment criteria is perfectly adequate in terms of matching your liabilities to some degree.

YAMAGUCHI

Dr. de Bever, you use managers to manage, but initially you invested directly. Why the change in policy, using managers instead of doing it directly?

DE BEVER

We had our own management team, which we merged with Cadillac when we bought the company, but you really should think of Cadillac as our internal manager. That's how we treat it. We stay in very close contact. We communicate our investment stance quite directly. Executives from their company sit in on our investment strategy meetings, so they are quite aware of how we are moving risk around in our investment program and how they fit into that. That makes it easier. For now, given that we had to buy all of Cadillac Fairview, we

bought a whole lot of real estate in one big scoop, and we probably don't need a whole lot more for the next little while. We want them to understand why that is and at the same time, we want to give them the opportunity to inform our management as to why we might be wrong, why, on a risk-reward basis, certain specific real estate investments might still be quite useful in supplementing or replacing some of our lower risk-return strategies.

YAMAGUCHI

Mr. Ishida, how do you differentiate between good and not-so-good managers? What is key?

ISHIDA

I think you are asking, "What are the factors that go into manager selection?" The bulk of our investments are in REITs. They are publicly traded, so we do not give individual instructions. Basically, we remain passive.

In the case of investing into private funds or deals proposed by trust banks, those of you who may want to start the investment should be well prepared. They are very different from investment advisors and trust banks that have been in the asset management business. In other words, they are really like real estate brokers. They speak ill of other deals, and you have to be prepared for that mentality, that personality; the style is completely different. You have to emphasize that you are looking at real estate as a financial instrument, not because of status value or that you are going to live there. You are not going to use that building, so you want to look at its competitiveness in attracting tenants or at how well the building is managed, in order to lower the management costs yet still attract tenants. You have to look at the properties as a vehicle to give you earned income. Those people will come up with ideas and describe investments as financial vehicles, not as real estate as such, because even within trust banks, asset management people are very different from real estate investment people. You have to start from there, from the different personalities.

YAMAGUCHI

How would you determine fair value for a certain property? Japanese pension plans don't have expertise in appraising value, and it is very difficult to understand whether the price offered is fair. What do you do to ascertain if the price is fair or not?

DE BEVER

It is actually quite simple to value the pure real estate component, by looking at what the yield or the income from the property is. I understand that in Japan, there are some conflicts of interest between the people that manage and they may be interconnected with the ones

that hold the asset. We don't have that issue. Every year we do an independent external valuation of one-third of our properties, so over a period of three years, all our properties get independently appraised. We do have a benchmark when we sell, but we don't really worry too much about it. In the past, it has turned out that our valuations were reasonably accurate. In fact, they should be neither higher nor lower than what you realize, and they have been within 5% of what we have carried on our books for.

YAMAGUCHI

What is your perspective, Mr. Ishida, on appraising prices?

ISHIDA

If you were going to invest in individual properties, it would be a different story, but we ourselves have not taken direct ownership positions in properties, so it has not been a concern of ours. If you look at the deals that are brought to us, you find that there are no great bargains, nor are they overvalued. They are more or less fairly, adequately priced because J-REITs have been making considerable progress in disclosing information. For example, an office building's unit price per square meter is very clearly identified and established in the capital market. J-REITs are currently the largest buyers of real estate, using money financed through capital markets, so they determine prices. If you try to buy on the cheap, then J-REITs will buy before you, and if they choose not to buy a certain property, then you would have to be suspicious that something may be wrong with that property. In that sense, because J-REITs are listed, you can reference the prices that those listed J-REITs trade and compare them to private real estate prices. If you really consider appraisal value, you will not make too many serious mistakes. I have not seen any deals that are outrageous in pricing or any particular bargains. Therefore, I think the actual market for real estate operates very efficiently.

YAMAGUCHI

Do you think there is a conflict of interest in Japan?

ISHIDA

Yes, I would say so. Fees are a problem, and the various service contracts that come attached to the real estate investment contracts must be closely scrutinized. Property management contracts with further subcontracting contracts and all kinds of related transactions are not necessarily transparent. You have to seek transparency; otherwise, it is very difficult for you to make an investment. This is not to say all transactions between interested parties are bad. For example, if Nippon Building Fund Management pays Mitsui Real Estate a property manage-

ment fee, this is not necessarily a bad arrangement; it is a matter of performance. If you really want to have better occupancy in a building, for example, and the fee is really justified, then we investors should not say anything critical. This is true for listed properties and for private funds. Of course, it is not desirable to be locked into a contract for the long term. If performance deteriorates, any sort of provision that allows a revision of the contract is desirable. Of course, it is ideal if you are not exposed to any conflicts of interest, but then you would have to stay out of investing all together.

YAMAGUCHI

What about in Canada? Do you see conflict of interest questions?

DE BEVER

What we pay particular attention to are the incentives we give our managers. I know that incentive compensation is not quite as common in Japan as it is in North America, but we evaluate our managers on their ability to improve the long-term quality of the investments. We have a rolling four-year evaluation horizon against a real poor asset return. We look quite closely at whether they cut corners to get there. Four years is short, but any longer would be ineffective as a way to evaluate managers.

YAMAGUCHI

Product providers' and investors' interests are really aligned? Is that what you are saying?

DE BEVER

Given that we hold the property directly, yes. We have insight into everything surrounding the property, the rent rolls, the tax rolls, any issues with the building itself. There is no transparency issue. I would be very reluctant, by the way, to go the blind trust route. To my way of thinking, you are inviting a lot of governance issues that you do not have when you know exactly what you own. That puts the onus on you to spend a lot of effort trying to understand the asset. For instance, when we were talking about hedge funds, we were talking about the need for transparency. I think I would be reluctant to say in real estate that it would be better not to have it. I would rather hold directly, where I have insight into everything that I own.

YAMAGUCHI

You talked about investment into shopping malls and office buildings. I think there would be differences in the attractiveness of these. Can you elaborate on that?

DE BEVER

The value of shopping malls is really tied to retail sales because of the way our rental rates work; they are basically a proportion of retail sales. That is a much more

stable component of GDP than office occupancy. Office occupancy can change for all sorts of reasons, including technological change. For instance, if companies decide to take their administrative offices and move them to the suburbs and you hold downtown office towers, you're in trouble because all of a sudden, you may lose five or six floors in your main building. We have gone through consolidation of certain industries that has had the same effect: financial services, life insurance, some of the law firms. Of course, those are big users of office space, so we have been reluctant to get too over-exposed to office space unless there was a natural restriction on the future supply. There is a tendency in almost every market to overbuild. The moment there is a little bit of pick-up in the economy, you start the cranes going up and people start building office buildings again. We have been able to avoid that temptation in our major cities so far. The supply has kept pace, roughly, with the ability of the economy to absorb, but I would say that about 80% of our assets are in retail because it is almost like a bond. It ticks over 8% nominal, or 5% or 6% real with clockwork, and that is what you are looking for in real estate. You don't want any problems where you can't predict what is going to happen next, because the structural changes in the economy are coming so rapidly.

YAMAGUCHI

Mr. Ishida, one of the problems that you touched on was governance after investment. How do you think this problem can be alleviated?

ISHIDA

We are a tax-qualified pension fund, so there is a limitation on what we can do. However, a pension fund could choose to own real estate directly or contract with a direct property manager, which would serve to increase competition in this industry and increase transactional transparency. This latter point especially signifies the importance of deregulation.

With private fund contracts, the only power we can hold over the manager is to avoid investing in the next fund. Of course, there may be commitments that would be required even by compromising liquidity, but if you are only investing in real estate to hold that property, you do not need a long-term contract. A contractual situation that provides greater strength in negotiating with the service provider to demand and get improvement is much more favorable. I think a mechanism should be established that allows this.

DE BEVER

Let's say the model that we are using in North America works reasonably well in general. Can you make the case in Japan, that if you are pursuing a somewhat lower real rate of growth because of different demo-

graphics and you say, “We want a 3% real return,” if you discount your future rental stream to 3%, do the valuations of current Japanese property make sense?

YAMAGUCHI

Your question is whether we can expect an inflation-adjusted real return of 3% from real estate related investments?

DE BEVER

Correct. That’s what you face, right? If it doesn’t earn 3%, why would you bother?

ISHIDA

I think it would be difficult to obtain a 3% return in real terms. The equity risk premium for the domestic equities alone is only slightly above 2%. Capital in Japan is very cheap, so even the equity risk premium is very low. When it comes to real estate, these are hard assets, brick and mortar assets, which are relatively easy to understand. Can we expect a real return of 3%, which is currently higher than the equity risk premium? I think this is difficult.

YAMAGUCHI

We are running out of time. To those pension funds that would like to get started in real estate investment, what would be your advice?

DE BEVER

I think my advice is encapsulated in what we just discussed. I think you face a really tough time justifying real estate in your portfolio, because although you may not be able to earn that kind of return of 3% on Japanese equity, I think there are probably lots of other strategies that would get you to 3%. They would not involve Japanese assets. Maybe that is a constraint, and maybe that is why you are going to be forced into Japanese real estate, by default, but if you are perfectly free to look around the world, I think a 3% real return is probably not something that is too hard to find. That would be my advice—look elsewhere!

YAMAGUCHI

How do you evaluate rising prices in North America?

DE BEVER

I just came from Australia and it’s gotten totally ridiculous there, particularly in the residential market. I saw a graph of how, since 1990, prices have quadrupled. To me that is a yellow light saying this has gone too far. Investment managers used to be reluctant to assume that

investments were starting-point dependent. That, to me, is ridiculous. You always try to buy low and sell high. Market timing is part of every decision you make, whether it is in equities or real estate. You have to pick your spots, you have to be very careful where you invest and you have to stay out of the very hot markets in North America and Australia.

YAMAGUCHI

What would be your final advice to pension funds interested in real estate investment?

ISHIDA

The domestic real estate market is still developing, but the sense of overheating is very great. Pension funds and regional banks have, in the recent past, invested in securitized real estate, so it is quite overheated. Those who actually bring in the deals for investment in REITs, for example, are sometimes criticized by us for their very high fees, and they say, “Okay, if you don’t buy, we will seek another buyer.” There are other buyers of relatively high-fee REITs, which are mostly the regional banks. The income stream is not really attractive, but there are investors in Japan, which is a source of concern for us. The yields of J-REITs, for example, because of past rising prices, are now dwindling. If Japan is going to follow the path of other industrialized countries in the real estate market, then institutional investors like pension funds would come to possess the majority of the property in the domestic market, but this requires a very long-term structural reform. If that becomes a reality, it may be right for us to deal with local properties because we understand the circumstances in which the sellers of these properties are placed. They are not willing to sell property because they don’t think the property is attractive or that the rental income is very good. They are at the verge of having to sell the property they possess in order to raise funds they need for operation. If the yield is 3%, 4%, or 5%, nobody would want to sell, but there is this structural change going on in the real estate market, and the ownership structure is changing, so this asset class may be invested in more extensively in the future in Japan. The listed J-REITs and the real estate companies may eventually drastically change their business models, and this may result in an overall reform of the real estate market. They have a high interest in pension funds as investors. I do believe, however, that this asset class is quite attractive, despite the current market situation.

CLOSING REMARKS

Keynote Speech



N.P. NARVEKAR
President, Columbia Investment
Management Company, LLC

I do believe that the term “alternatives” is not a particularly meaningful one, but leaving that aside, I certainly believe that alternatives are very much worth the effort that you can put into them. I think that they are a necessary, if not even central, part of generating an attractive risk-adjusted return for an institutional investor. I believe so, because I believe in the power of diversification of attractive, risk-adjusting returns or, put another way, the power of diversification of attractive sources of beta and alpha. In many ways, although we have a large hedge fund portfolio at Columbia, we don’t think in terms of a hedge fund portfolio, but rather in terms of one holistic portfolio with sources of beta and alpha.

I am the president of Columbia Investment Management Company. I joined about 18 months ago, and in fact, Columbia Investment Management Company was only formed about 15 months ago, with the single purpose, as a wholly-owned subsidiary of Columbia University, of managing the University’s US\$4.3 billion endowment. Since I am still quite new, I can say that many of my ideas are still in implementation form, but I do take comfort in the success of many leading U.S. endowments using, by and large, similar approaches. Our Investment Management Company, the IMC, is governed by a small board of Columbia-connected professionals in the financial, Wall Street, and buy-side world, a highly prominent group of six or seven individuals. Our team itself consists of 16 people, 12 professionals. In many ways, we are an internal fund of funds across different groups, with the important distinction that I believe strongly in the cross-efforts between different groups. I think the best institutional investors are those that can think actively across different types of strategies, think very carefully about the kinds of exposures, and about where and how one might best get an exposure, be it with a hedge fund, a traditional manager, or a private equity manager. Like many leading U.S. endowments, I have inherited at Columbia a very large exposure to what might be considered alternative investments. Roughly 40% of the endowment is in what you might call hedge funds, another 20%, broadly defined, in private assets or private equity. I think, over my time at Columbia, the composition of both the hedge fund portfolio and

the private equity portfolio will change, although those numbers themselves may not change that much.

As an endowment, we are somewhat different than a pension fund. One significant difference is that pension funds, at least in the U.S., have legal liability to make payments to the pensioners. As an endowment, we don’t have that. However, I think it is fair to say that that difference is somewhat superficial; if I were to tell the University Trustees or the President of the University that we will be making no payments to the University this year, it would not be well received. More important, both pension funds and endowments share a need for generating attractive, risk-adjusted returns, dialed to whatever appropriate risk tolerance those individual institutions may have.

I am going to divide my comments today into three brief topics. First, I want to share with you some of the basic principles under which we operate. It is hard to talk about alternatives in the context of asset allocation without understanding the basic principles we try to follow. Secondly, I will try to talk briefly about alternatives by sharing the framework in which we think about asset allocation. Finally, I will share a few thoughts about execution issues to consider in implementing a strategy, particularly in the hedge fund arena, because it seems so timely and so popular, and, time permitting, in the equity arena, as well.

I divide the principles on which we operate into two groups. There are portfolio principles and there are also work principles. The work principles are the principles that guide the way in which we do our work and analysis. This is a comment made by Robert Rubin, former head of Goldman Sachs and former Secretary of the U.S. Treasury. I think this statement is an important one for all of us to consider. His basic point is that while, “outcomes are important, and we all know that outcomes are important, it is critical for us to think about the decision process, because well-thought-out decisions can turn out poorly or poorly-thought-out decisions can very luckily turn out well, but the best way to ensure good, long-term outcomes is to ensure a good, long-term decision process.” It is a mantra, which we in the Columbia Investment Management Company try to live by and by which I try to evaluate all my team members and I ask my board to evaluate me. It is, in many ways, very different from the way we as investors are trained to think. We think only about outcomes, but I think the *process* that leads to outcomes is critical as well.

Secondly, while we are all under very short term pressures for different reasons, it is important that we

think in the long term because as so many of the speakers have told us today, many of the results of what we are trying to do in the alternative arena can only be evaluated and achieved over a significant number of years. For any investment in a strategy or even in a manager, it is important to have a clear investment thesis, which means a clear definition of the investment and a clear understanding of the components of the return and why they should exist. Why has there been a return to this process in the past? What inefficiency is being exploited, who is paying for that, and why will they continue to do so? In that regard, I find it often very curious how in the U.S. fundamentally driven long-short equity hedge funds are often the most popular. I think it is understandable why many would find them the most easy to understand, but at the same time, their source of alpha systematically is not as clear as some others. Perhaps in 1999, 2000, and even 2001, one could easily argue it was the stupid retail investor or the stupid day trader or the cumbersome, slow-to-move, large institutional money manager with the hedge funds taking advantage of this. Certainly, in the last couple of years, all you have to do is talk to Morgan Stanley or Goldman Sachs and they will tell you that the largest traders on both sides are hedge funds, increasingly, and there will be winners and there will be losers. If you look at the Columbia portfolio, we can see increasingly single stocks that are both on the long side of certain managers and the short side of others. I'm not saying that long-short equity is not a good area to be in. I'm saying that the source of systematic alpha is less clear, and it is much more purely about talent.

Back on the investment thesis, for any area we should think about the risks. What could go wrong? What could take the alpha away? Finally and most importantly, we should think about, "What are the expected returns going forward?" By expected returns, I generally mean expected excess returns, excess returns over cash. Also, what is the expected volatility and what is the expected correlation with the rest of our portfolio? For me, it is critical to have an intuitive sense of these matters and then use historical analysis, as appropriate, to back up that intuitive sense. All of this is much easier said than done, and I can tell you that I, personally, struggle with this continuously.

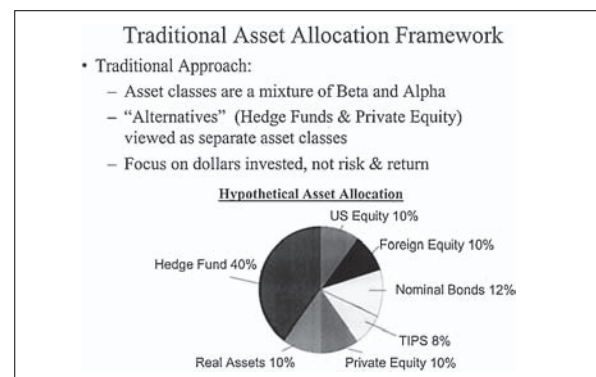
The final work principles would be two more. One, which one of our last speakers just mentioned, is to network, to speak among yourselves. Investors have a great advantage, to be able to speak among themselves actively. Some will speak more than others, some will be more helpful than others, but I ask you to do your own work, do your own analysis, have your own opinion, but be willing to hear what those like you think and how they might think differently from you. Just because they think differently, doesn't mean you are

wrong, but it is worth understanding why they think differently. Finally, because quantitative analysis, as much as I appreciate it, is limited, qualitative analysis and qualitative thought process are very important. At the highest level, common sense is irreplaceable. There is no substitute for a basic dose of common sense.

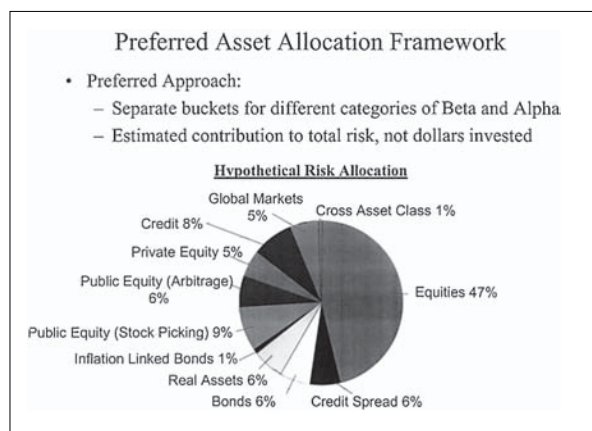
There are many portfolio principles and I won't belabor them here. Some of the previous speakers have already touched upon them. I mentioned earlier that I believe in diversification of attractive, risk-adjusted returns, because that is one way to generate an overall, attractive risk-adjusted return for your portfolio. Importantly, I believe we should also express our asset allocation, not just in terms of nominal asset allocation, but in terms of the contribution to risk of each different portion of the portfolio. We call that risk allocation.

Finally, we believe that prudent leverage, or de-leverage, can be used to tailor the risk-adjusted return to the desired risk tolerance of our University, as articulated and discussed by our board. There are a number of other principles. For example, we believe in rebalancing. Even at the manager selection level, there are principles. We size our allocations to managers differently based on what we believe is, yes, their contribution to risk through tracking error, but equally importantly, through softer, qualitative metrics including our degree of conviction, our sense of stability of the organization, our comfort with them, the transparency, and the liquidity. Once again, common sense plays an important role in being an institutional investor.

If I can leave you with a few thoughts on this, asset allocation, in my opinion, is the most important thing that we do. I believe in diversification, as I've said before. I believe, also, that we should think in terms of risk allocation and asset allocation and that alternatives can play a fundamental role in that—alternatives as providers of sources of alpha. Hedge funds, private equity, and real estate, to me, are only relevant as they are providers of sources of alpha or in some cases, even beta, as appropriate. Really, "alternatives," in my mind, is not a meaningful name, because they really are subsumed into the broader sense of betas and alphas.



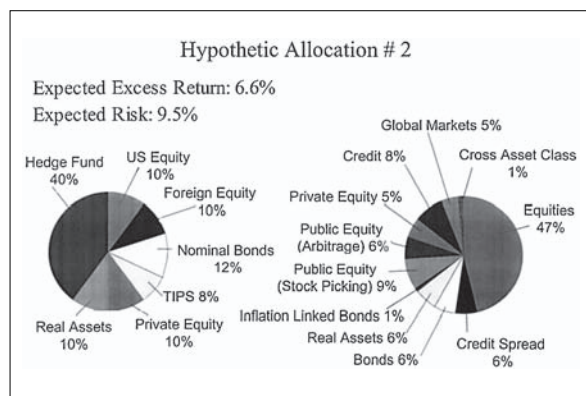
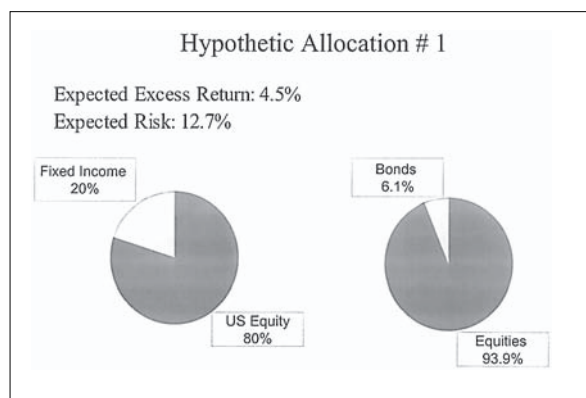
Take as an example of an asset allocation (this is not Columbia's specific allocation, although it may be a target toward which we move to over time), what you see at Columbia—some of it represents what I think is a very common allocation for large, U.S. endowments, the top 5 or 10 leading U.S. endowments: a very large hedge fund portfolio. In Columbia's case it actually is 40% with significant allocations to private equity and real assets. This type of illustration of asset allocation is marked by putting alternatives as hedge funds and private equities as their own asset class and focusing on dollars invested and not risk contribution.



You can translate that same asset allocation to a risk allocation. I prefer this approach, because it separates buckets of beta and alpha and it estimates total contribution to total risk, rather than dollars invested, so you can see on the right, the large number is equity beta. As you go clockwise around, you see other betas like credit spreads, nominal bonds, and inflation-linked bonds. From there, you see alpha sources, public equity stock picking. Later, you see private equity stock picking, credits, global markets, which is really a simple word for fixed-income and foreign exchange markets. All the assumptions as to the contribution of risk come from statistics based on the very same assumptions we talked about earlier that are so difficult and are painful but are important to do: expected excess return, expected volatility, and expected correlation. Hedge funds appear nowhere on this page. Those exposures are essentially included in these sources of beta and alpha. You will also notice that this shows that equities makes a very large portion of our risk, even though it represents a smaller portion of the dollars invested.

What are the benefits of looking at it this way? I think it is a way to have an intelligent discussion about our portfolio. If we make a change from having, for example, a three-year duration on our bond portfolio, to a 25-year duration on our bond portfolio, our traditional approach does not reflect any difference, while a risk approach would do so. I also think it is a better fit for

today's complex portfolios of hedge funds, private equities, and other types of investments. Conceptually, this approach is really not any different than large U.S. investment banks and banks at which I spent most of my career. It is not different from some very sophisticated hedge funds, with an important difference: our time frame at Columbia is much longer. We are not concerned about a single day VaR or a weekly VaR. We think in longer terms, so we ask our board questions like, "What is your tolerance for the risk that five years from now Columbia's endowment is worth less in real terms than it is today?" and based on that dialogue and approach, we build our asset allocation. By the way, I share a number of our speakers' concerns about VaR, and obviously it is a tool, but by no means a means to an end. It needs to be augmented with stress testing scenario analysis and common sense, of course.



There are shortfalls to this approach, to be sure. It needs a lot of statistical inputs and a lot of assumptions. Small changes in those assumptions can sometimes lead to significant changes in outcome. Therefore, we don't believe in using this framework to create an optimal portfolio. One of the speakers earlier in the private equity arena mentioned the limitations of mean variance optimization in the context of private equity. We would agree that, therefore, we think about this approach directionally. We ask ourselves the question, "What would happen if we shifted more of our fixed-income

risk to TIPS or what if we reduced our exposure to public equity stock picking alpha in favor of global markets, i.e., fixed-income and foreign exchange alpha? We think about this directionally, rather than having a false sense of precision in an optimization approach.

Finally, just like “alternatives,” “hedge funds” are not a meaningful name. Hedge funds are a distribution vehicle. It is critical for you as investors to understand what they do and not what they call themselves. I think an important issue also facing you increasingly is to understand what is most important, the manager or the strategy. If the strategy is important, as opposed to the manager, then be very sensitive to the issue of fees. If the manager is important, then the fee issue is less important. I say this, because I think increasingly, we are seeing some degree of commoditization of certain hedge fund strategies. I don’t think I’m going out on a limb when I say things like convertible arbitrage and merger arbitrage have been highly commoditized based on the tremendous flow of capital that will go into them over the next few years. As you think about your programs, you may find that there are ways of accessing credible managers to run strategies for you in that regard, in those strategies at much lower fees. I am not saying that convertible arbitrage or merger arbitrage will not create good risk-adjusted returns. Instead, I am saying that you may not need to pay that much for certain items.

Liquidity is an important thing to think about, and others have touched on it. When you think about a hedge fund, think about the liquidity of its assets vs. its liabilities. Many hedge funds have some degree of illiquid assets. Think about the liability structure in terms of the liquidity it gives to LPs and make sure that those, too, do not seem mismatched. Also, think about the relationships, and ask questions about the relationships between a hedge fund and its prime broker, which is another major source of financing for many hedge funds. Many lessons were learned in 1998, and again in the summer of 2002, by hedge funds in this regard, but lessons that are learned are forgotten quickly, so these are important things to think about continuously. Most of all, as you think about a hedge fund, try to think

about the alignment of interests. This is very hard to do, but especially when you are thinking about multistrategy hedge funds with multiproducts, you want your money where the General Partner has its money.

The biggest issue facing hedge funds is surely the large inflow of funds. As an endowment, I will say, selfishly, that we find it very scary because we have been such long-term investors as endowments, we are terrified of the amount of capital that both the U.S. and Japan can potentially place in this industry. That amount of capital will prove to change the landscape for hedge funds going forward. It has already done so, to some degree. In my mind, it has the risk of polluting the alignment of interests, because a US\$300 million hedge fund needs good returns to pay itself well. A US\$6 billion hedge fund does not. Similarly, when a US\$300 million hedge fund turns into a US\$6 billion hedge fund, it goes from being five people, led by one very talented manager, to 50 people, and the efforts of that one talented manager are surely diluted. I am not saying that there are no benefits to size. Resources, access to good financing—that’s all true, but I am saying that bigger is not always better in the hedge fund arena, the private arena, or any other arena. I’m also saying that the flow of capital into hedge funds, broadly defined, will surely erode risk-adjusted returns over time.

People have talked about SEC oversight, and I agree with some of the concerns, that it has the potential to be broad and inappropriately used. Selfishly, I think that SEC oversight will lead to more capital coming in, so I don’t necessarily like that. Finally, I think we should be concerned about being too comfortable. Realize one thing—if the returns, the volatility, or the correlation of any particular strategy or manager, in particular, sounds too good to be true, it probably is.

What I have tried to do here in a very few minutes is just summarize and not in any way to give you a complete picture. If I can leave you with any thoughts, it is on some of those work principles that I shared with you that I think are central to what we do. Alternatives are surely not magic, but I think that a thoughtful approach to alternatives can be an important, if not central, part of your efforts going forward.

Closing Address



TOMOMI YANO
Executive Managing Director,
Pension Fund Association of Japan

Thank you very much for attending this conference and taking time out of your very busy schedule. I would like to thank the speakers and pan-

elists, particularly those who have come from the U.S. and Canada, to join us. I would also like to thank all the sponsors for making this possible, because we really asked them to give just financial support, but they had no sort of intervention in terms of voice.

Japanese pension funds are really facing very tough times. For three consecutive years, the funds have seen negative returns and even *Daikohenjo* and the actual dissolution of pension funds. Probably many of you are not focused on the management of such assets, but we are in this difficult situation because our management of the assets simply was not good enough. So, in constructing our portfolios, it is very important that we reestablish our skills and organizational framework for pension asset management.

We still seem to have two extreme views. Some people think of alternatives as a savior for the woes of pension funds, and still others would look at it as a world of dubious speculators. It is a very interesting dichotomy of views. This conference was organized from the perspective of pension funds because we wanted to make clear what kind of impact and implications the new vehicles really have for us. If you were able to identify just one or two interesting ideas, then this conference will have been very successful. And if you can take away just a hint or two in your day-to-day management activities, as an organizer of this conference I would be more than delighted.

Thank you very much again for your participation.

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